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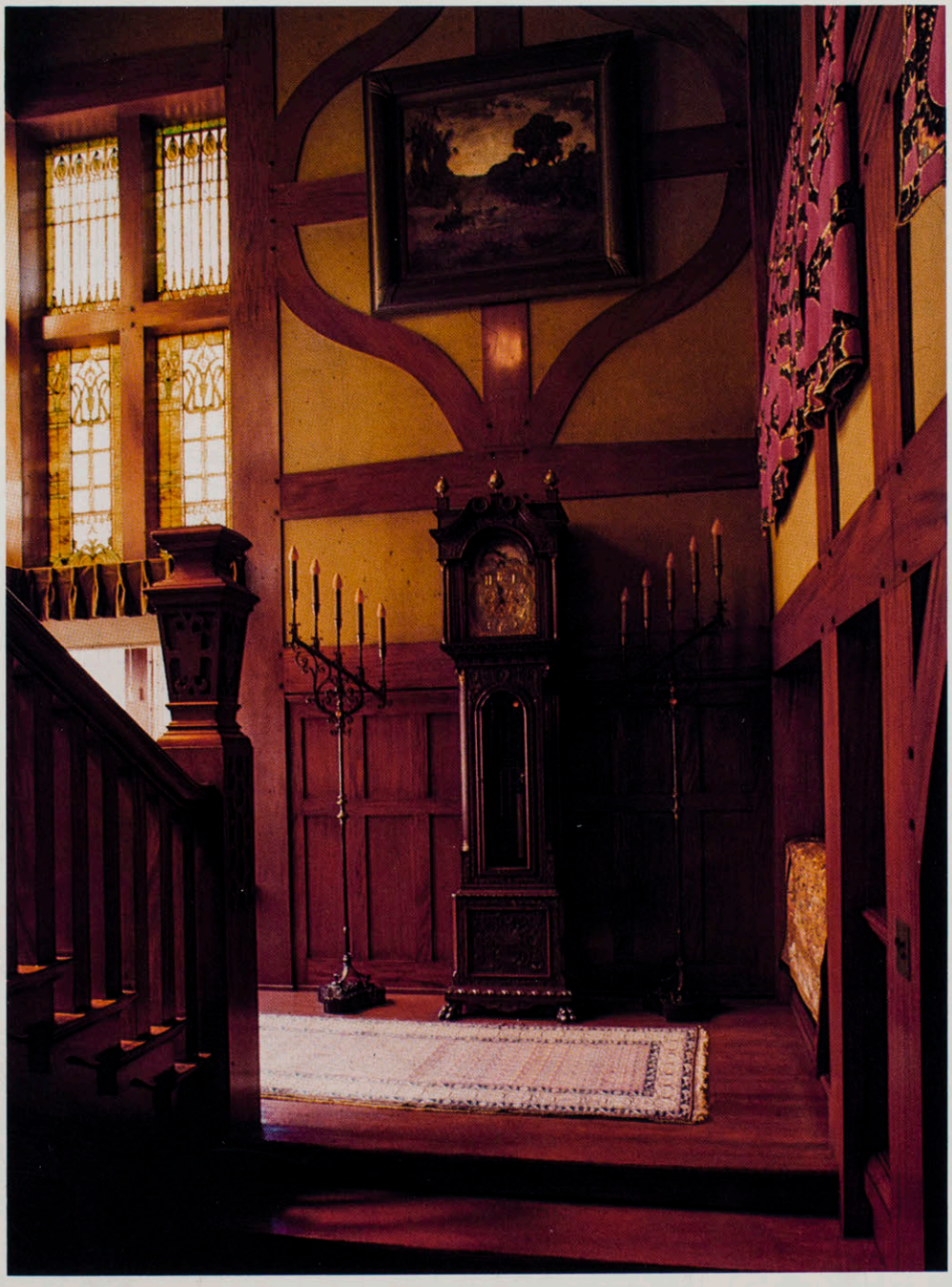

The New Heresy: or, Move Over, Leonardo

By Roy R. Snelling

Scientists are a coldly dispassionate lot who go about their business of doing research in esoterica and publishing the results of their investigations for the elucidation of their fellows. If there is cause for dispute, the matter is settled by rational discussion. Theories and principles are carefully weighed with cold-blooded logic. If valid, they are adopted; if not, they are abandoned. The academic midden is a marvelous accumulation of rejected ideas.

Unfortunately, this is not always the way of it and the Halls of Academe may become quite heated in the course of raging disagreement. Logic, rationality and objectivity become as rare as butterflies at the North Pole. Scientific detachment becomes lost in a maze of socio-political considerations which should never have become a part of the controversy. A storm of bitter vituperation now rages around a new book, "Sociobiology; The New Synthesis" by E. O. Wilson, and its author reviled in most inconsiderate terms.

For most of its nearly 700 pages this book is an enlightening and thorough comparison of the various levels of social organization throughout the animal kingdom, from colonial microorganisms to the bewildering world of man. Wilson has worked his way through a mountain of fact to synthesize his views on social organization. He has done so with a style and erudition which I, as a biologist involved with social insects, find quite exhilarating. It is not a book for casual browsing. The chapters range from "Elementary Concepts of Sociobiology" through "The Development and Modification of Social Behavior" to "Sex and Society" and culminates in "Man: From Sociobiology to Sociology."

This last chapter, though, is quite a hell-raiser, for it is here that Wilson draws certain tentative conclusions about the nature of man's behavior and social institutions. It is a chapter consisting largely of speculation, but one thing does seem certain: Wilson is of the opinion that some aspects of man's behavior are biologically controlled, that they are hereditary. This concept is known as *"biological determinism"* and purports that existing human societies, and the individuals within them, behave as they do as a result of biological (hereditary) predisposition. In other words, things are as they are because it is "human nature." There have been numerous determinist theories, often used to advance a specific political view. A particularly horrifying example of what biological determinism may lead to is the Nazi atrocities of World War II. Obviously, if Wilson is accused of biological determinism, the accusation carries a great deal of very negative emotional impact.

The contrasting *"environmentalist"* view states that people have basically the same potential, with similar levels of intelligence, ambition, ability, etc. Differences are held to be largely attributable to the environment in which an individual is raised. Thus, the black raised in ghettos of Harlem differs from the scion of a wealthy white family only to the extent of the differences in their environments. It is a view which proclaims: "There, but for the Grace of God, go I." Give everybody an equal amount of food, warmth, loving care, education and opportunity and everybody will be equal and happy. This, of course, is the politically acceptable view in our time. This Nation's entire social welfare program is based on the environmentalist concept. So, too, are socialism and communism. Environmentalism is implicit in the efforts to correct the social injustices based on sex, race, religion, etc.; these injustices usually are blamed on determinist views. Obviously, then, a determinist view is wholly unacceptable, socially and politically. Our social welfare programs would be immediately in difficulty because they are founded upon an invalid assumption. If correct, Wilson's view might well mean that an individual or a culture might fail due to biological characteristics, not due to a deprived environment.

Reaction to the new synthesis was not long in coming; this, of itself, is not unusual. What is remarkable is the vehemence and acrimony with which the work was criticized. The main source of criticism was a semi-anonymous collective, the Sociobiology Study Group of Science for the People. The collective is most concerned about the implications of the final chapter and has attacked Wilson's general and specific conclusions. Denying absolutely that human behavior is in any way genetically determined, the group has accused Wilson of resurrecting biological determinism. Wilson is accused of Nazi-like racism, of sexism, and of legitimizing the concept of the modern market-industrial-entrepreneurial society of the United States. The Sociobiology Study Group fears that Wilson's ideas will be used as political tools to justify continued racial and social injustice. In their view, if the scientific community, either in whole or in part, accepts the

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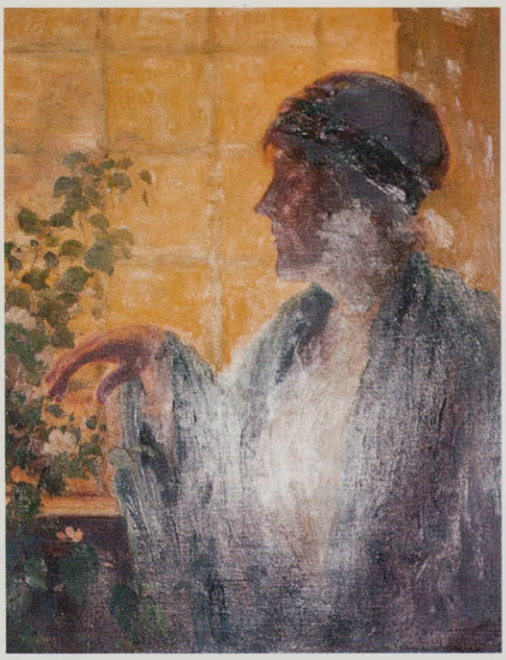


Nellie Durfee

A Story of Affluence, Loneliness, and an Age in Amber

by **Kilbee Brittain**

Editor's Note: Last year, not long before her hundredth birthday, Nellie McGaughey Durfee died in her Tudor mansion on Western Avenue near West Adams, in Los Angeles. Without realizing it, this sad, reclusive woman created a living museum, a piece of culture history when she chose to dwell after her husband's death in 1927 as if time stood still. Everything was preserved intact, biscuit tins on the kitchen cupboard shelves, prohibition whiskey in the hidden wine cellar and her late husband's clothes, clean and moth-free in his shrine-like dressing room. With Mrs. Durfee's death came the necessary executors of her will and the auctioneers of her possessions. The Natural History Museum of Los Angeles County was fortunate, along with the Los Angeles County Museum of Art, to be able to view and photograph this "living museum" before its dispersal. Vain attempts were made at intact preservation but the enemies were both time and money. As of now, the possessions are gone, the house stands proud and empty, perhaps soon to be torn down.

The Cover

The stairway landing of the Durfee house on Western Avenue in Los Angeles. It is dominated by the beautifully designed leaded amber stained-glass windows.

"Bury my body on my right side, not on my back, and bury me by my husband, and see that I am really dead." Nellie Durfee wrote this some years before she died in her Tudor mansion on Western near West Adams, on February 28, 1976, in the dark early morning hours.

She was ninety-nine when she died of the heart and circulatory problems common to so many. But in every other way, Nellie Durfee was a most uncommon woman.

Some people said she had died once before, when her husband William Durfee succumbed in 1927 to a mixed diagnosis of pneumonia or poisoning from eating a bad fish. Nellie retreated into her opulent mansion, slept with the key to William's cabinet around her neck, changed nothing at all around the home, and lived for fifty years in comparative isolation.

Nellie's home was 1927–life preserved in amber; her own life, a mystery. She is remembered variously as a great lady, a brilliant and delightful conversationalist, a tyrant, a child prone to tantrums, a secret philanthropist, an enemy of tax-exempt institutions, a cat lover, a child hater, a passionate gardener, an excellent artist, a foe of organized religion, an atheist, a lonely soul.

The story is imbedded in time.

Born Helen Belle McGaughey in Chattanooga, Tennessee, on July 11, 1876, Nellie was brought to California at age nine by her mother, Elizabeth Gates McGaughey, a woman of great wealth and equally great interest in breeding horses. When Nellie was nineteen, Mrs. McGaughey made an unlikely-sounding but successful marriage to Nicola Antonio Bonfilio, who had immigrated from Chiavari, near Genoa, and after a business success in New York, eventually had become owner of the Excelsior Laundry in downtown Los Angeles.

Bonfilio's first marriage had ended in an annulment, despite the birth of a son, and the Roman Catholic Nicola and the Christian Scientist Lizzie McGaughey were married by a Congregational minister on August 13, 1895. Nicola and his wife's monies enabled the Bonfilios to buy a large number of properties as well as to assure Lizzie the place of top breeder of harness racing horses in the West. While she pursued her avocation, Nicola became prominent in Los Angeles financial circles, a director of the Bank of Italy and of the Merchants National Bank.

In October, 1901, the Bonfilios bought a home at 2019 South Figueroa; it remained the family home for some twenty years, until it was torn down to build a Pierce-Arrow automobile factory. Nellie spent her early

Nellie Durfee and her beloved William.

adult years in that home with her stepfather and mother, whom she would later remember as strict and repressive, as she would later recall herself as "an unwanted child."

Always searching for ways to further her harness racing interests, in 1906 Lizzie Bonfilio hired a new trainer-driver, William George Durfee, whose remarkable record motivated the Los Angeles *Times* to note, "Born, bred, and raised with trotters and pacers, this driver has been a marked success from the time he first handled a pair of ribbons."

Within three years the Bonfilio stable boasted "the world's best pacer," and Durfee was listed as the chief attraction of the Los Angeles Driving Club's Thanksgiving matinee. Mrs. Bonfilio told the *Times*, "I would rather lose any horse in my possession than the services of such an expert."

Nellie McGaughey, who was now thirty years old, also took notice of the tall, charming Durfee. It was not clear whether or not Nellie had had earlier romances; she seems to have been quite dominated by her family, held to them by a combination of attraction and aggravation. But Durfee changed all that. A Santa Barbara newspaper headlined the story:

PLUNGER LEFT
Loved Another Woman

Jennie Durfee, a handsome, well-groomed woman, was plaintiff in a divorce suit in Judge Cole's court yesterday, and she got her decree. W. G. Durfee, a well-known horseman, was the defendant, and the charge was desertion.... He is known as one of the big plungers. The Durfees were married in 1897, and in 1907 the wife became suspicious of his loyalty to her. She received a tip that hubby was in San Francisco lingering with an unknown woman, and she went North herself to see if the reports were true. They were. Not only that, but Durfee told her that he was satisfied with his new relation, and she could do what she pleased about it.

The divorce was granted March 22, 1910; to make sure that her "plunger" (turn-of-the-century slang for "gambler") was really free, Nellie arranged for Jennie Durfee and the two children to have a substantial check and a deed to some property—both negotiable only after the divorce had become final.

Nellie had not taken into account her mother's power; Lizzie Bonfilio disapproved of the match, and Nellie and William Durfee were not married until after her mother's death the following year. Nine months before she died, Lizzie wrote a letter to "dearest Nellie and Nicola" in which she never mentioned William Durfee, but rather urged her husband and her daughter to stay faithfully together: "Try to live together and harmoniously, for you know that would make me so happy, and you will never forget me. I should like you two to live here in our dear home. You have more to gain by holding together and treating each other right. Don't foil me in this my last wish on earth. Mama."

William Durfee and Nellie McGaughey were married on Saturday, the fourteenth of October, 1911, in Santa Barbara, four months after Lizzie had died. After such a prolonged courtship, even the wedding was threatened by delay. Two justices of the peace refused to marry them because the legislature had just passed the eighteenth amendment to the California Constitution, which provided for abolishment of the office of justice of the peace. "Up in the Air," the Los Angeles *Times* titled the story, describing how "the wealthy turfman who was recently divorced after sensational court proceedings and the beautiful young woman" finally were married by a police judge. They recovered from this confusion by staying at the Potter in Santa Barbara before continuing to San Francisco for their honeymoon.

Nellie got what she had wanted; and William, as some of his racing friends later told one of the Durfee staff, "had really won the biggest race of all."

Life proceeded happily for the Durfees. They lived at home with Nicola, as Mama had wished. Durfee continued his successes as a "turfman," driving for one of the big racing names. He won the Kentucky Futurity in 1912; *Horse World* ran a cartoon of the winning horse Manrico popping out of a surprise box opened by Durfee.

Five years later, however, the Riverside *Enterprise* ran a page-one story headlined "Driver Durfee Drops Out of the Game," announcing that Durfee was retiring from harness racing because of the wishes of his wife. Perhaps Nellie did not want to share her husband with a demanding employer any more than her mother had wanted to share her driver's valuable time with her daughter.

The family ties were intense. Nellie had waited a good part of her young life for William Durfee; she had spent many good years loving and at the same time chafing under the parental hold. The Durfees did everything together; they travelled, they

bought art; Nellie painted china and oils of their travels, and William admired the results; they exulted in having acquired what they felt they really wanted in life.

In the early 1920's the Durfees decided to move to the more fashionable west side of town, and purchased a fairly new mansion on Western near Adams. The house had been built in 1908 for a wealthy Eastern lumberman who had wanted only the best. The oak floors were to be "first quality quarter sawed white oak," the architect's specifications read; "The contractor is to make good any defects showing up within a year, and must clean up as he goes along. All floors must be left broom clean and all windows washed and cleaned. There is to be no smoking inside the building or spitting of tobacco juice on the floor or into the registers."

The lumberman and his family did not live in the house for more than a few years. There were parties, and quarrels, a shooting and a suicide, and the remaining family moved away, leaving their grand piano in the enormous ballroom on the third floor. They leased the house to Rupert Hughes for three years. The place became a gathering point for the early movie crowd; duelling scenes and marriages were filmed on the grand staircase and in the richly panelled rooms.

It was a fine house, with its forty-two rooms, huge separate servants' quarters, and three acres; the Durfees paid $105,000 for it all.

Both Nellie and William loved travel, and an elegant style of life. They had taken numerous trips abroad, during which she indulged her deep interest in art and they bought furnishings and museum-quality Oriental rugs for their home. Their 1922 joint passport, for "all countries, including Sweden and Denmark," described Durfee as a "stockman" with an oval face, regular mouth, square chin, and long nose. His birthdate was listed as June 30, 1875. Passports did not describe wives, which was just as well, since Nellie had subtracted nine years from her age when applying for a driver's license in 1914.

In 1923 they embarked on a trip of several months to Europe and Africa in the company of her stepfather, Nicola Bonfilio. Apparently both Nellie and Nicola had taken to heart her mother's letter telling them to stand by each other.

But by the time they reached Lucerne, sixty-seven-year-old Nicola had become ill; he died at supper time on July 27, 1923, in the Hotel Balances-Bellevue. The Durfees took charge of his temporary interment at the Lucerne cemetery, and informed his brother, Monseigneur Paul Bonfilio, who had travelled with them from Genoa almost to Lucerne only a few days before.

The Los Angeles *Times* eulogized Nicola as a man of "temperate and thrifty habits," a prominent Mason and California Club member. The paper quoted the Italian consul as saying that Nicola "embodied the typical characteristics of the Italian people, intelligence, a national intuition for business, and that love of art and beauty which with the Italians is almost a religion." The consui went on to say how fortunate Nicola had been to marry a lady whose interest in art was as deep as his, so they might adorn their Figueroa Street residence with masterworks from all over the world.

Nicola provided for the already-wealthy Nellie generously, having written "I deem it fair and just to the memory of her mother, that my said stepdaughter should benefit from my estate."

While they were in Europe, staff members kept the new Durfee home running. A former chauffeur recalls his start with the family, when he was a gardener's assistant at the Daniel Murphy estate next door (now St. John of God Hospital): "I was tired of scuffling pansies, so I went next door and asked the head gardener if he needed help, and I spent the next two years balling trees to bring from the Figueroa home over to Western."

Copy of lower portion of Durfees' passport.

Given under my hand and the seal of the Department of State at the City of Washington, the 12th day of August in the year 1922 and of the Independence of the United States the one hundred and forty-seventh

Charles E. Hughes

PERSONAL DESCRIPTION.

Age 47 years — Mouth regular
Height 5 ft. 11 in. — Chin square
Forehead medium — Hair dark brown
Eyes brown — Complexion medium fair
Nose long — Face oval
Distinguishing marks
Place of birth Los Angeles Calif
Date of birth June 30, 1875
Occupation stockman

William G. Durfee
SIGNATURE OF BEARER

William G Durfee
Mrs Nellie Durfee

PHOTOGRAPH OF BEARER.

No. 211703

The Durfees returned home in 1924 followed by all the crates of their purchases. Spirits were high; life was full of pleasure. Nellie sketched and painted; she and William entertained various Los Angeles luminaries. Nellie is remembered as being ready to defend what she considered her properties, both people and things; she sometimes carried a gun around the house, alternately terrorizing and captivating her staff with her emotionalism. One chauffeur died of ulcers.

In 1927 the Durfees took a fishing trip to the Columbia River, where William was taken ill. Whether from pneumonia or from poisoning after eating some fish, William Durfee died on the eighteenth of July in the Benson Hotel in Portland.

The funeral at the Western home was attended by all the prominent racing people in Southern California. An uninvited guest was the first Mrs. Durfee, Jennie, who hid sobbing with their two children behind the sulky which was smothered in flowers.

William was buried in Rosedale cemetery, beside Lizzie and Nicola Bonfilio. Nellie was devastated. She tried to end her life, by poison, and was saved by prompt treatment at a hospital near their home. Not being one to let others take charge of her life, she phoned her chauffeur to come rescue her from the hospital, changed from her hospital gown in a telephone booth, and escaped home to Western Avenue.

Nellie closed up her heart, and her house, from that day. She welcomed few visitors (the dining room was used only once in the next fifty years), travelled only with trusted staff, and changed nothing in the home, freezing a portrait of 1927 life, preserved in a moment of grieving opulence.

One part of Nellie remained alive and creative: she attended classes at the Otis Art Institute for a few years, filling ever more rooms of her mansion with her paintings. Another part of Nellie kept trying to die. Not wishing to cause a public scene, she apparently decided to die by not eating. After a long fast, she ended up in a local hospital where a nurse of great experience and compassion, Mary Margaret Bowen, was assigned to her care.

One day when the Durfee business manager, Richard Puffer, came into the hospital room to visit his client, Miss Bowen was also there. They recognized each other instantly and joyously, and told Nellie a remarkable story.

After being dreadfully injured in battle in World War I, Richard Puffer was loaded into a truck bringing dead and dying Allied soldiers to a field hospital in France. The nurse in charge, who was Miss Bowen, saw a flicker of life in one of the injured, although his arm had been blown off at the shoulder. She concentrated her energies on saving the one soldier for whom there was any hope at all. She nursed Puffer back to health, until finally he was able to return home to the United States, and enter the Los Angeles business world, where he met the Durfees.

Miss Bowen served out the war years at the French front, receiving the Medaille D'Honneur en argent on January 24, 1919, as well as over a dozen other medals for courageous service.

After their coincidental meeting in Los Angeles, Miss Bowen and Puffer remained lifelong friends; Miss Bowen accompanied Nellie home from the hospital, and stayed with her until her own death in 1953. Nellie, determined to keep her own near to her, had Miss Bowen's body disinterred from a Roman Catholic cemetery and buried in the Durfee family plot at Rosedale.

Miss Bowen had been Nellie's dear friend; when the 1933 earthquake gave the solid mansion a good shaking, Nellie and Miss Bowen slept in the Pierce-Arrow parked on the driveway for two weeks. Miss Bowen had also protected Nellie from the world, and from the overzealous friendship of some of her staff. She had a running feud with a chauffeur who drove Nellie, in deep mourning, and Miss Bowen, in white, to the National Parks, Washington, Florida, and Mexico; the chauffeur remembers Miss Bowen as a back-seat driver who contradicted him in everything he said about the sights they saw.

Every day Nellie would tell her driving companions about happier days and journeys with William Durfee; every night she would phone home and talk to the dog.

Nellie was also devoted to cats. A codicil to one of her wills arranged for "Kit Cat, age about two, with tiger marking and four white feet," to receive $7,500, and to be taken care of by the Puffers. The cat died before it could benefit from such generosity, and the sum it would have inherited grew and grew as the story made the rounds.

Nellie watched her money carefully. She kept close track of her many properties. She used old notepaper imprinted with Nicola's name from time to time; she did not order proper food for herself except at the urging of her staff. She kept boxes of silk stockings and extensive household supplies in the dozens of cupboards in the mansion, and would not permit any of them to be used. She was generous in her contributions to animal societies and in her gifts to friends and servants. One of her staff received a weekly crate of oranges. When a cook left in the middle of the night after some emotional encounter with her employer, Nellie paid the woman's rent until the cook died. In the pocket of her painter's smock Nellie carried a roll of bills which she dispensed to her staff as she saw fit.

She refused to give any money to any tax-exempt groups or to any organized religion, claiming to be an atheist. Once she told Brother Patrick at St. John of God Hospital next door that she would send a check for his nieces and nephews, but not to him, because he represented a tax-exempt institution which caused her own taxes to be higher.

Nellie's sympathies seemed to go out to the animal and plant worlds more than to abstract "mankind"; she worried about the effects of smog on her plants, but not on "the two-legged creatures." Some of her former staff recall her disliking children, and having such a tantrum that she had to go to bed for two weeks after a man delivering a load of fertilizer brought his eight-year-old daughter into the garden; yet one of her chauffeurs lived with his wife and two children in the rooms above the garage for years.

After Miss Bowen's death, Nellie's life took a darker turn. "I have been quite ill, and have very little interest in anything," she wrote a former staff member. She ate in the kitchen, telling stories of the past to her staff. Brother Patrick cultivated a friendship with her, phoning her after supper on Saturday nights and chatting with her; she told him she had spent "months in the Vatican" studying the works of art. She refused visitors, however, telling Brother Patrick, "I am a female hermit." He remembers her as an observant woman: when he was novice master at St. John of God, Nellie liked to look out her window at the priests playing volleyball. When Brother Patrick went to New York for his brother's funeral, Nellie telephoned to find out where he had gone. She kept up with all the news, but was extremely wary (no doubt with ample cause) of people who, she thought, were after her money. "You can't trust anyone in this vulture society," she told Brother Patrick.

More sadness was in store for Nellie; her eyesight began to fail, a dreadful burden for a lonely woman whose great remaining love was art. In 1964 she had an operation for cataracts. On her arrival home, when her eyes were still healing, she found that her staff, in an excess of zeal, had cleaned William Durfee's room, finding huge amounts of cash she had kept secreted under the rug for years. Her emotional storm at finding this outrage so damaged her eyes that she became blind.

William Durfee with champion trotter and admirers.

Richard Puffer found Nellie the companion who was to stay with her until death, Mrs. Eva Neumann, a cultured lady who had recently been companion to ninety-year-old twins ("I took them to Disneyland and they went on all the rides."). They both loved art, books, music, and good stories.

Nellie spent countless hours telling Mrs. Neumann stories of the past ("She had a wicked sense of humor!") while sitting in the kitchen sipping the I. W. Harper or the Manischevitz she enjoyed and asked Mrs. Neumann to purchase from time to time. (Nellie never mentioned the existence of the wine cellar, hidden by massive doors and locks, and not discovered until after her death. It was stocked with hundreds of bottles of rare 1890's wines and champagnes.)

Mrs. Neumann read aloud to Nellie, and played the piano for her while singing old songs. "I found her beautiful," Mrs. Neumann says, "I loved her so much."

Once when Nellie became ill, Mrs. Neumann took her to St. John of God Hospital, where she spent ten days regaining her health. But soon Nellie required nurses around the clock. Mrs. Neumann did not have a high opinion of the nurses. "Now let me tell you something," she recalls telling a mean nurse, "You don't treat Mrs. Durfee like that!"

In the last days of her life, "she had a beautiful smile whenever I touched her," Mrs. Neumann remembers. "I would go in to her and give her my strong arms—see how strong my arms are?—and she would say, 'No one will ever take you away from me.'"

When life slipped away from Nellie Durfee, six months short of her hundredth birthday, Eva Neumann was with her.

Although Nellie had ordered that there be no religious services for her, and no close relatives were still living, Brother Patrick said a few words at the grave at Rosedale; "I said, 'Now here is our dear friend and neighbor Nellie Durfee; we must think of her love of art and nature....'"

Later, Brother Patrick was to muse, "Getting older brings such loneliness to us all; we need someone to be close to us and overlook our idiosyncrasies...to be kind to us."

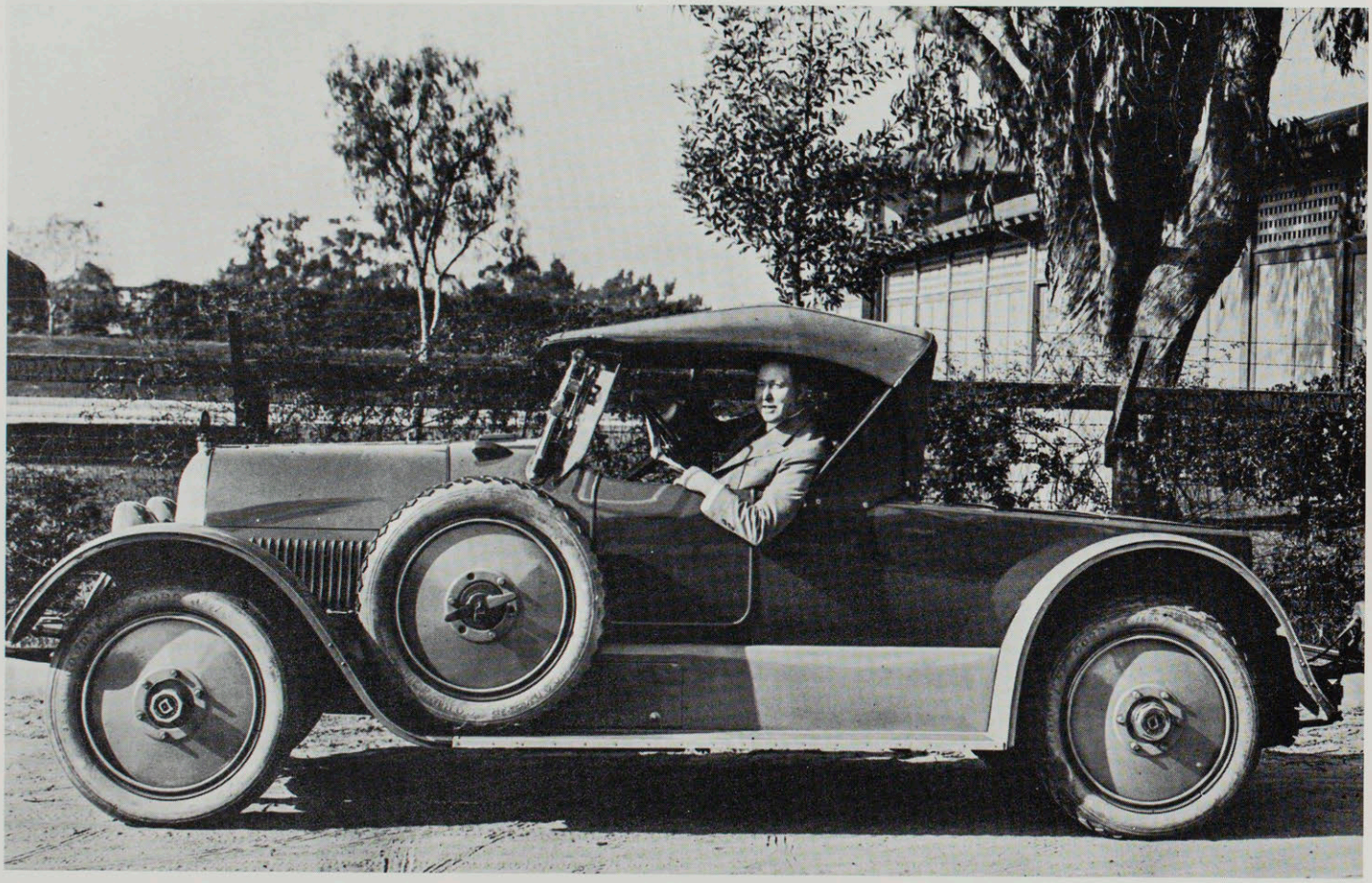
Nellie's brilliance and volatile personality had been remembered by a number of old associates, sometimes in quite contradictory ways. There was an unknown quantity about her. Even the grand old house in which time had stopped held some surprises. When the house was being appraised, someone leaned against a wall while moving a statue. A door swung open, revealing a room stacked with Nellie's paintings of beautiful nudes, and a portrait of her mother turned face to the wall.

Yet the overwhelming impression visitors received before the furnishings were removed for auction was one of great appreciation for, great love for, life as it had been lived in those happier days when William Durfee had brought vitality to Nellie McGaughey's dreams. The passage of time had been denied. And so, perhaps, had been the tensions and conflicts of bittersweet youthful years. Before she became blind, Nellie had written this letter in her large, flowing hand:

"To my darling Mother in Heaven. If you could only know how wonderfully Father kept his word to you, he never left me until death took him. And in death he loved me and provided for me most generously and bountifully. Never was there such a splendid father, he kept faith with you as he did with everyone throughout his life. Today I am old, broken, desolate. Oh, so desolate! The grandest mother, the grandest husband, the grandest father any woman ever possessed. Death has taken all of you. But never did any one of us betray or leave the other, that solace is mine. Nellie Durfee."

Kilbee Brittain is a contributing editor of TERRA. Information for this article was compiled from the public record, and from interviews.

Horse trainer Durfee also loved sporty cars.



The Durfee House

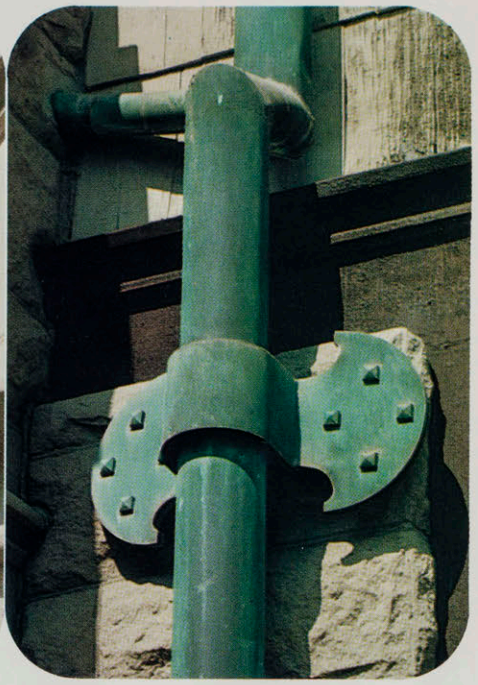
by William Ezelle Jones

In a city whose very vitality comes from change, it is a unique experience to discover a home kept intact for decades. It has afforded this decorative arts historian a remarkable opportunity to explore the life style and tastes of Los Angeles' opulent society of some fifty years ago.

The impression one receives in passing through the Durfee house is that of a trip backwards in time. Frozen almost intact in 1927, upon the death of Mr. Durfee, the house tells a story seldom found in the textbooks on social or architectural history. The social standing of the original builders, and then of the Durfees, required specific standards in taste at a time when Southern California was like an adolescent, not sure of itself. The contemporary need for change was emerging, all things seemed possible, and life was comfortable. The Durfee house has endured till the present, unchanged because of Mrs. Durfee's sorrow, reclusive nature, and ultimate blindness, but the life and taste of the Twenties it reflects has vanished.

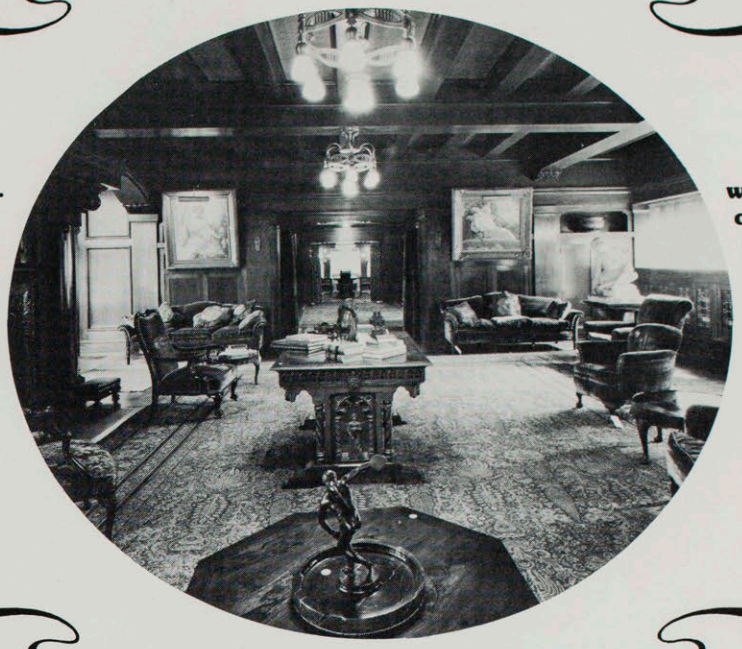
The Durfee house was built in 1908 as a Tudor showplace in the then-fashionable West Adams district of Los Angeles. Its style is a reflection of the mode of life passed on to Southern California from the East Coast and nineteenth-century traditions. Even the coach house with chauffeur's quarters above, set at the back of the property, attests to the luxurious scale in which architects designed residences early in this century when California was becoming more than a summer place for Easterners. The architect, F. L. Roehrig, evidently specialized in fine family residences, illustrated here by the stately proportions, meticulous attention to detail and extraordinary storage space. The home was designed with five family bedrooms, four bedrooms for staff, plus the garage apartment. This ratio of staff to family disappeared before World War II in all but a handful of most elaborate residences. Photographs were taken soon after the Durfees moved in.

The back of the home further reveals the graceful style of the architecture, and rich detailing, such as the copper drainpipes.
The Italianate fountain and urns are exotic touches often used in this period. Photo: Armando Solis.



Structural hardware and light fixtures demonstrate exceptional architectural detail. Photos: Armando Solis.

The impressive entry hall is twenty by thirty feet. Here, as throughout the house, Oriental carpets cover the floors. The mix of European styles seen in this entryway is found in even greater profusion in the other public areas. Photo: Armando Solis.



The graciously proportioned living room is thirty-four by twenty-eight feet, excluding two immense bay windows. Paneled in the same rich mahogany as the entry, the room exudes elegance and warmth. The ceiling is crossed with applied (hollow) beams, between which the stenciled canvas ceiling can be seen. In this room, red velour sofas, decorative pillows, the sculpture, carpet, books and ashtrays remain as they were placed some fifty years ago. Photo: Armando Solis.

As with much of the house the dining room retains much of its original art-nouveau inspired interior elements. Above the mahogany dado is a narrow strip of William Morris-type wall fabric. The feeling of the room has been somewhat diminished by the Durfee addition of cut-glass lighting sconces, which can only relate to the Georgian revival of the Twenties. Photo: Armando Solis.

Architect Roehrig's elaborate storage areas include this second-floor linen room. Not shown is the third-floor trunk room, another architectural casualty of World War II. Photo: Armando Solis.

Off the entry is a curious morning room which demonstrates the subtle changes the Durfees made in this house. The room has been extensively altered from the architect's plans, with a blue-tiled fireplace removed and paneled over, a guest closet removed, and the room enlarged with a raised arcaded alcove replete with Venetian standing lamps. This alteration and the inclusion of the European-style furniture (here one cannot say antique in any sense but style) illustrates the American desire in the opulent Twenties to display a veneer of European culture and offer tangible evidence of European travel. Photo: Armando Solis.

The lavish upstairs hall is dominated by the Don Quixote cabinet. Silk Persian rug in right foreground has been tagged by Sotheby-Parke Bernet for auction. Photo: Armando Solis.

The master bedroom suites off the main hallway are particularly commodious, offering built-in storage with space unheard-of today. The furniture is a mixture of nineteenth-century Georgian revival and comfortable "overstuffed" pieces mixed with rattan "summer" furniture. Double baths with the original large-scaled porcelain fixtures connect the bedroom suites. Photo: Armando Solis.

Another forgotten feature of many early twentieth-century houses is the "assembly" or ballroom. This spectacular example measures ninety-four by twenty-six feet. Being the least-used area of the house, it has undergone fewer changes than other space. A hammered copper hood over the fireplace again recalls art nouveau. Low braced beams create an arcaded effect which is enhanced by lighting, still with their appropriate early low-wattage bulbs. Window-seats below dormer windows provide intimate seating in this less-than-intimate room which runs across the front of the house, under the eaves. The rest of the third floor is occupied by staff bedrooms, which are reached by the back stairs. Photo: Armando Solis.

Down the backstairs on the first floor is the kitchen, which boasts a massive range made to look small by the size of the ventilation hood into which it is set. The kitchen is not designed as one of today's "step-savers," but still contains the original linoleum nearly as fresh as when it was put down. Photo: Armando Solis.

Off a landing leading to the basement is a relic of the days when the Eighteenth Amendment created domestic as well as public problems. The secret wine cellar with its hidden entry is doubly protected by a bank vault door with combination lock. Even should the door have been discovered it would have looked like a security vault and not like what lay beyond. Photo: Kilbee Brittain.

The walls of the main vault, ten by twelve feet, are lined with bottles containing every sort of whiskey or brandy a connoisseur might need, and an extensive selection of fine French wines, including a quantity of Chateau Lafite 1898 and domestic labels of California vintners we have forgotten. In a small alcove stands the sink and bottling area where quantities of wines and spirits could be rebottled with the aid of siphons and funnels. Unused California wine labels are stacked on the counter. Photo: Kilbee Brittain.

The kitchen cupboard demonstrates that things were left as they were when Mr. Durfee died. Photo: Kilbee Brittain.

William Ezelle Jones is curator of Decorative Arts and Design at Los Angeles County Museum of Art. He has a special interest in historic houses, having served as advisor on the restoration of the Phineas Banning house in Wilmington, treasurer of the Friends of R. M. Schindler house on King's Road, and on the Southern California A.I.A. task force to save the Central Library.

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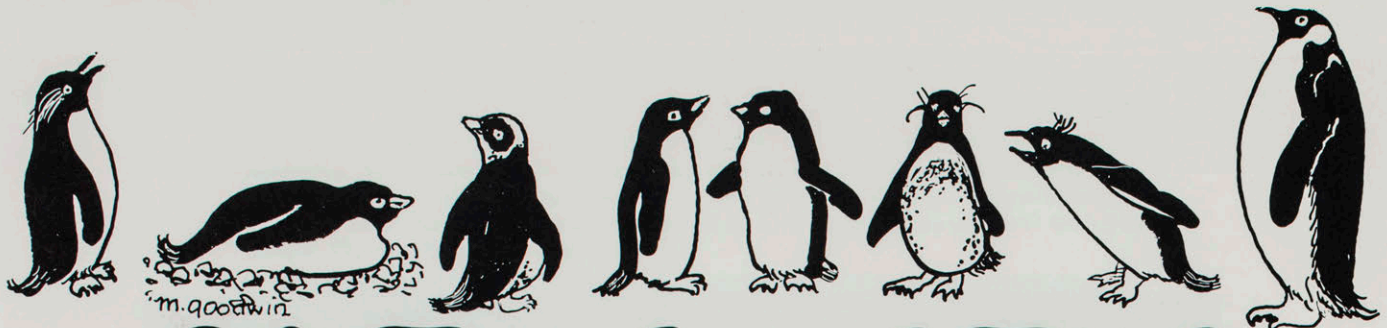


Ye Feather'd Fish

by **Mary P. Goodwin**

Drawings by the author

"And so the little penguins, hearing the happy children's voices, hurried on deck to greet the Admiral. And they waved their little flippers and adjusted their smart vests, and dived off joyfully into the icy water. 'Good-bye,' they chorused, and marched off all in a line on the shore ice to their homes."

This is the way a child's story might end... and there are many of them. American children often grow up in a world of anthropomorphized penguin lore. Penguins float north on cakes of ice to the most unlikely adventures. It's a rare author (or cartoonist) who remains solemn and can resist making these "little people" into humanesque (the author's neologism) heroes.

Penguins are indeed fascinating. If you sit very still in the middle of a colony of Adélies (*Pygoscelis adéliae*) and observe, they seem to do things that people do. They walk upright wearing a sort of suit. They might be studying alternatives. They must be talking to each other, and they certainly are arguing. They're curious and fearless. One of them will walk right up to you (or a sledge dog!) and investigate from head to toe. Everything interests them. A penguin will chase a six-foot man and can inflict a nasty blow with his flipper. They live in what looks like a rather disorderly town but with some semblance of rules and station. It is almost impossible to watch penguins in the wild without anthropomorphic reactions. And in zoos crowds of children as well as adults stand mesmerized by their antics.

In the Antarctic a fascinating day can be spent in a penguin colony providing you can stand the overwhelming sound... and SMELL! Great, gangling, brownish-black, fuzzy, ambulatory "pears" run everywhere after their parents, tripping over each other and every small object. All around on the rocks and dirty ice is a pinkish, oily, excretory ground cover. The fighting and bickering produces a raucous background cackle which can be heard for a long way. But the smell carries even further. You might be downwind of a vast garbage fill or just around a headland behind which lie ten stranded whales on the shingle!

Perhaps the Polynesians sailing south from New Zealand in their great canoes in the seventh century first saw the penguins. They do speak of a "frozen ocean." The early Portuguese and Spanish explorers rounding the southern tips of Africa and South America first described penguins. Antonio Pigafetta, the scholar who sailed with Magellan in 1519, writes in his journal of seeing flocks of "strange geese."

Sir Francis Drake sailed the same coast of Patagonia in 1578 and wrote about, "a great store of strange birds... so thick we could not go without treading upon them. They could not flie at all, nor yet runne so fast as that they could escape us with their lives; in body they are less than a goose, and bigger than a Mallard, short and thicke sett together, having no feathers, but instead therof a certaine hard and matted downe. [T]heir beakes are not much unlike the bills of Crowes, they lodge and breed upon the land, on whiche they lay their egges and bring up their young; their feeding and provision to live on is in the sea, where they swimm in such sort as nature may seeme to have granted them no small prerogative in swiftnesse,..."

The hardship and length of these early voyages of the Portuguese, Spanish, Dutch and English, looking for trade in the fabled East Indies, made these new lands in the southern hemisphere welcome. The crews desperately needed fresh meat and water, and they found it in the bays of Tierra del Fuego and the Cape of Good Hope. The men went ashore and collected eggs and birds, replenishing the ships' stores. They dried and salted the meat, boiled the skins for cooking oil, and for many days ate the meat fresh as a cure for scurvy though they did not then understand the basis for this disease. "The fleshe of these Penguins is much of the savour of certaine Fowle, by the taste it is easily discerned that they feed on fish. They are very fat and are reasonable meat rosted, baked, or sodden, but best rosted. We salted some dozen or sixteen Hogsheads, which served us whilst they lasted instead of powdred Beefe." (Sir Richard Hawkins, 1594) And, "We went on shore to gather fruite therewith to refresh our sicke men that were 33 in one shippe. In this bay there lyeth a small islande wherein are many birdes called Pyncuins that are taken with men's hands." (First Dutch expedition to the East, 1595, Capt. Wm. Lodewijckszoon)

Today the vast penguin rookeries are disturbed only by tourists flying over them in helicopters and to some extent by biologists studying physiology and communal behavior.

The name penguin was probably first given by the Spanish to the northern auks and petrels. They called them *penguigo* which comes from the Latin *pinguis*, meaning fat. Before the scientific expeditions of the eighteenth century, penguins were thought to be transitional between birds and fishes. Admiral Beaulieu in 1620, "took them to be feather'd Fish." Slowly the seventeen species of the family Spheniscidae Penguins have been recognized and classified and their mystifying evolution studied.

Penguins are pelagic seabirds, living widely where their food is found in the circumpolar and cool temperate waters of the southern ocean. Their distribution follows the contours of the southern currents. They are not found in the northern hemisphere probably because of the barrier of the tropical waters. Large breeding colonies occur on almost all of the sub-Antarctic islands and four species make their nests on the continent itself. The most northerly live on the Galápagos islands off the coast of Chile. Penguins vary in size from the Emperor, three to four feet tall, to the little Blue penguin of the Australian coast which stands only thirteen to fifteen inches high. They live from six to fifteen years. They are distinguished by their upright stance, inability to fly, dark feathers on the backs and

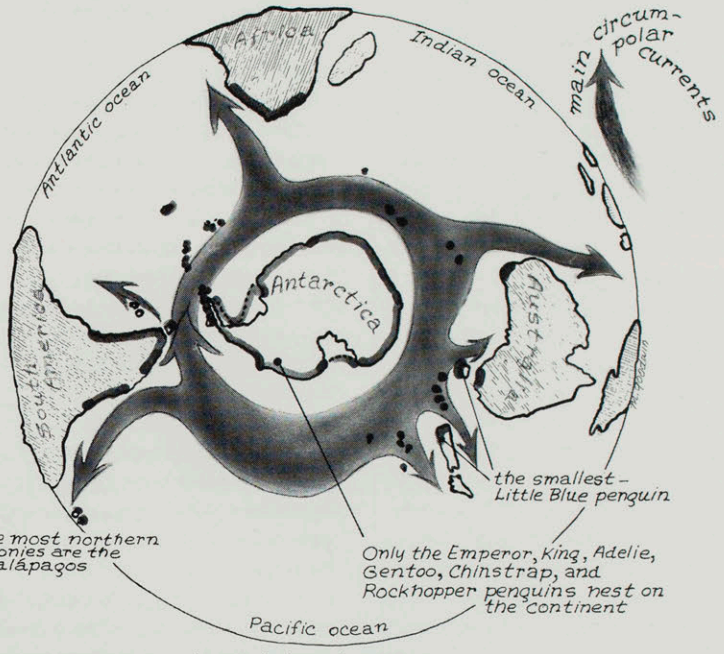
flippers and light-colored chest. Some have colored patches on the head or are crested.

Penguins nest and raise their young on land or the attached ice. They feed on fish, squid, and zooplankton and spend most of their lives in the sea. Though they are flightless they are specialized, in their unique way, for flying in water.

Of the seventeen species of penguins, the most well known are the Emperor (*Aptenodytes forsteri*), largest of them all; King (*Aptenodytes patagonica*); Adélie (*Pygoscelis adéliae*); Gentoo (*Pygoscelis papua*); Galápagos (*Spheniscus mendiculus*); Chinstrap (*Pygoscelis antarctica*); and the Rockhopper (*Eudyptes crestatus*), which is one of several crested birds. All evolved first as aerial birds from reptiles in the early Cretaceous period. Sometime during the Paleocene birds very much like today's penguins originated. Fossil penguins have been found from forty-five million years ago, all in the southern hemisphere. Dr. George Gaylord Simpson in his monograph on "Fossil Penguins" (1946) has a delightful figure comparing the sizes of man and penguins past and present.

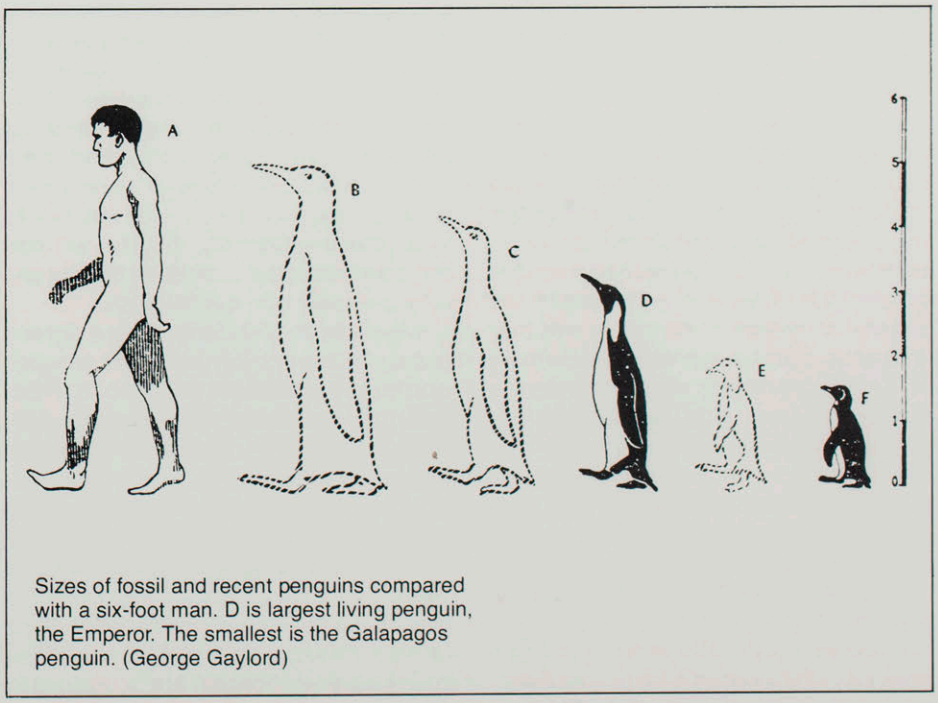
The penguin evolved rapidly from an aerial bird to one more suited for underwater life, where it found abundant food. (Diving petrels are somewhere in between in their adaption to the aquatic medium.) Penguins use their tapered, flat wings for flight underwater, their heavy streamlined bodies are projectiles, and their webbed feet trail as rudders. They shoot through the water and into the air where they coast in a graceful arc up and down again. This maneuver is called "porpoising" and is a beautiful sight to see. At sea the penguin has no equal for speed and grace.

In the water the penguin's only enemy is the rapacious leopard seal (*Hydrurga leptonyx*). This animal is slim and fast, has a snake-like head, powerful jaws, and hunts alone. Its method of catching penguins in open water is to chase the bird until it is exhausted, or to come up under a small floe on which the birds are basking and tip them into the water. A healthy adult penguin can usually escape a leopard seal; it is probably the young and weak which are taken. During breeding months the seal cruises the waters just off the rookery or under the ice foot from which the birds must dive. A crowd of penguins gathers. One bird is pushed or dives in. If he comes up all is safe, and the group will venture into the sea. As the seal catches a penguin he holds it in his jaws and sharply flicks his head. This action peels the body and it is then swallowed whole while the skin floats away.


Indian ocean
main circum-polar currents
Atlantic ocean
Antarctica
Australia
South America
the smallest – Little Blue penguin
the most northern colonies are the Galápagos
Only the Emperor, King, Adelie, Gentoo, Chinstrap, and Rockhopper penguins nest on the continent
Pacific ocean

Map of circumpolar currents and penguin breeding areas.

Comparison in size between the King penguin and the Little Blue or Fairy penguin. (Drawn from a photo-montage. They would never occur together in nature).



Sizes of fossil and recent penguins compared with a six-foot man. D is largest living penguin, the Emperor. The smallest is the Galapagos penguin. (George Gaylord)

Since penguins, as all birds, are warm-blooded, they have the problem of maintaining heat balance. An Emperor in an Antarctic blizzard has to warm up; a Jackass penguin (*Spheniscus demersus*) (named for its braying sound) on a sunny beach must cool down. When the blood vessels constrict within the penguin's thick layer of blubber and the stiff feathers lie close and flat the bird conserves heat. When the capillaries swell and the feathers are ruffled heat is lost. Patches of bare skin and feathered feet, as well as raised flippers, help to regulate the heat balance. Penguins are waterproofed with overlapping, close, waxy, flat feathers and while swimming no skin is actually exposed to the 28°F. cold.

All but one species of penguins breed in the summer months. They come in from the sea in October, first one or two early birds and finally thousands come streaming across the ice (Adélies sometimes go as far as twenty to thirty miles inland on the ice) towards their ancestral colonies. How do they know which part of the sub-Antarctic islands or the continent is "theirs"?

In December of 1966 at the Russian research station of Mirny three Adélie penguins came home to "their" rookery. Two years before this, Dr. Richard Penney and Dr. John Emlen had captured these and other penguins, marked them, and taken them far inland on the ice. There they released them to see if they could find their way home. These intrepid birds did just that. They came from far across the Antarctic continent and they had been gone more than two years. They had travelled *3,000* miles, walking, tobogganing, and finally swimming. They were fat and healthy and immediately set about finding mates and constructing nests.

Penguins are eminently useful for studying the navigation of all birds. Aerial migrating birds are hard to track, but the penguin is a hardy and slow overland trekker. He can be tagged or fitted with a small transmitter, and followed by plane while on the snow or ice. Penguins use the sun as their main clue to navigation. They sense the height and direction of the sun, combine this with their internal biological clocks which tell them the time of day relative to seasonal changes. The navigation of birds has intrigued man for hundreds of years. Fascinating new work is going on. It involves the birds' use of stars, the earth's magnetic field, and air pressure changes. But the sun's position relative to the time of the year in the bird's endocrine systems seems to be the basic tool.

The first birds to arrive at the rookery are the males. They spend a lot of time establishing territories and fighting for nesting spots. Each penguin species chooses a different kind of site and builds a special sort of nest. Only Emperors and King penguins do not build nests. Penguins of the sub-polar areas nest in burrows, rock crevices, or on tufts of tussock grass. Those on the fringes of the Antarctic continent usually build slightly elevated, concave, circular nests of small pebbles. As there are only so many pebbles penguins spend a lot of time pinching stones from each other's partially constructed and temporarily unprotected nests. In a test with dyed stones it was found that nearby birds would steal the same stones over and over. Eventually colored stones were dispersed throughout the rookery. Louis C. Bernacchi, who was with Capt. Scott on the *Discovery* expedition, describes this perfectly. "The thief slowly approaches the one he wishes to rob with a most creditable air of nonchalance and disinterestedness, and if, on getting closer, the other looks at him suspiciously, he will immediately gaze around almost child-like and bland, and appear to be admiring the scenery. The assumption of innocence is perfect; but no sooner than the other looks in a different direction, than he will dart down on one of the pebbles of its nest and scamper away with it in his beak."

Chinstrap penguin with egg.

When the females arrive more fighting ensues as the rookery becomes crowded with hundreds of thousands of birds. "Ecstatic" sexual displays are performed by the males. This involves swaying heads, fully upright extended bodies, flippers outstretched, beaks pointed skyward, all accompanied by a loud, thump-like rhythmic calling. This eventually does attract a mate. Yearlings are left out of the competition and they spend the season on the edge of the rookery. Paired birds tend to stay together year after year though there is occasional switching even when the former years' mate has survived. How penguins recognize each other or even each other's sex is a wonder. The sexes look alike. Perhaps only by the "ecstatic" display and the individual calls may they be distinguished. Somehow the previously mated pairs recognize each other.

Copulation in the rookery takes a great deal of cooperation by each pair and goes on for several weeks. In nearly November egg laying begins. Two eggs are usually laid, except for the Emperor and King, about the same size, a few days apart. This means that one chick will hatch before the other, and the younger and therefore smaller sibling often does not get an equal share of the food and does not survive. The Rockhopper penguin has evolved a way out of this dilemma. The female lays a first small egg and about four days later, one a little bit bigger. When they hatch four days apart they have an equal chance in the competitive begging for food.

Incubation in most species except the Emperor and King, lasts about a month. The female always fasts during courtship and egg laying, some of the males too. After egg-laying the female goes back to sea to feed, leaving the male to take the first incubation stint. He keeps the egg warm and free from being washed away by the many meltstreams which now begin to course through the rookery. After a snow storm a very poignant sight is thousands of white mounds with little black heads sticking out, but the birds can easily dig themselves out.

After the female returns, well fed, the pair alternates brooding and returning to the rich seas to fatten again. As each bird returns to the nest to relieve the mate the birds reenforce their pair bond. This is done with a "mutual" display, very like the "ecstatic" display of the courting male. They stand facing each other or side by side, necks and beaks extended, bowing and weaving at each other.

Penguin chicks have a tough time breaking out of their shells. It sometimes takes several days during which the half-hatched naked chick is extremely vulnerable. Once they are hatched they must be protected from the cold and from predators.

The main enemy of the penguin embryo and small chick is the brown skua (*Catharcata skua lombergi*), though the sheathbill and giant petrel will take eggs and chicks as well. The skua is a gull-like scavenger and nests on the fringes of the penguins' territories. Their egg laying and hatching comes just a few days later than that of the resident penguins. Thus the adult skuas are assured a supply of penguin eggs

Adélie rookery in the snow.
Photo: Mary P. Goodwin.

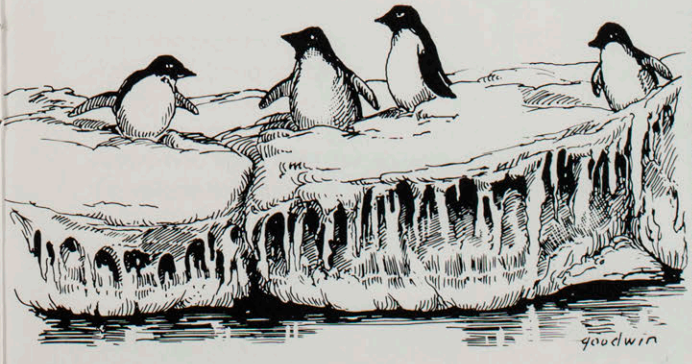
Adélie rookery near Palmer Base, Arthur Harbor.
Photo: Mary P. Goodwin.

Skua guarding her chick. Photo: Frank Kazukaitis, U.S. Navy.

"Mutual display" at the nest. (Dr. G. Murray Levick, R. N. British Antarctic Expedition).

Interesting lines of Emperor penguins crossing the ice. Photo: Jean-Claude Deguine.

Adélie penguins on the ice foot.
(Sketched in the Antarctic).



when they are nesting and of young or weak chicks when their own have hatched.

Adult penguins are very adept at defending themselves and their young, and skuas do not have an easy time taking this source of food. They sometimes work in a pair; one will distract the brooding bird while the other snatches the egg. They will harass a weakening young chick, herding it towards the edge of the rookery, and then take it when it is exhausted. In early January the penguin chicks are three to four weeks old and too big for the skuas to attack successfully. Now the predators must turn to the sea to feed their young.

Penguin chicks have an insatiable hunger, for they must now grow rapidly. There is a wonderfully coordinated seasonal exploitation in this process. The timing of nest building and laying of eggs is all geared to the Springtime loosening of the ice pack. As the ice breaks up and floats north, open water and the tremendous upwelling of nutrient-rich bottom currents allows newly hatched chicks to be well fed by the parents. They are fed by regurgitation... a rich soup of partially digested oily mixture. Smaller penguins feed on fish and zooplankton, chiefly the tiny shrimplike *Euphausia superba,* which we call "krill."

Soon the young birds can no longer fit under the protecting parent, especially if both chicks survive. It is a ludicrous sight to see all but the head of a peat-colored fuzzy chick, almost as large as his parent, sticking out from under the adult bird. At this stage many of the young begin to gather in a group in the dense center of the rookery. This is called a "crèche." Most young of aerial birds do not form communal nurseries, but penguins almost always do. Safety in numbers or retention of heat are possible advantages. There is very little interaction among the young; they do not play at all, they do not jostle for position; they just stand together and move en bloc.

It is difficult for adult birds returning from the sea with full craws to find their own young in the crèche. A host of juveniles will spot a returning "parent" and take off after it. Now, of course, only one, or at most two, of these are the proper young. Nevertheless, a wild chase and general melee invariably ensues. The parent refuses to feed any other offspring but its own and how it makes this distinction is still much of a mystery. Eventually the interlopers drop off or catch sight of another incoming parent and take off after it. The chick is rapidly fed its large liquid meal, but it is rarely satisfied and shortly is off stumbling after another weary adult.

The unfortunate few young birds whose

Leopard seal at the edge of the water. Photo: Mary P. Goodwin

parents may not have escaped the jaws of a sea leopard will starve amid all this activity and plenty. As a result, penguin rookeries are often tragically littered with dessicating bodies of chicks of all ages.

And so this incessant feeding goes on, right through the molting of the young when their appearance is the utmost of *déshabillement.* At five to six weeks of age they look as though the moths had got into them! As the down fluffs away fine black and white plumage grows sleek.

From twelve to fourteen weeks after hatching the penguin chicks are ready for the sea. In the early fall when the lengthening nights bring a thin layer of pancake ice to the bays and inlets, the young birds get their first taste of the sea which they take to with immediate ease and accomplishment. In groups, they revel in sliding down the ice foot and hopping on to passing floes. They play follow the leader porpoising in and out of the water.

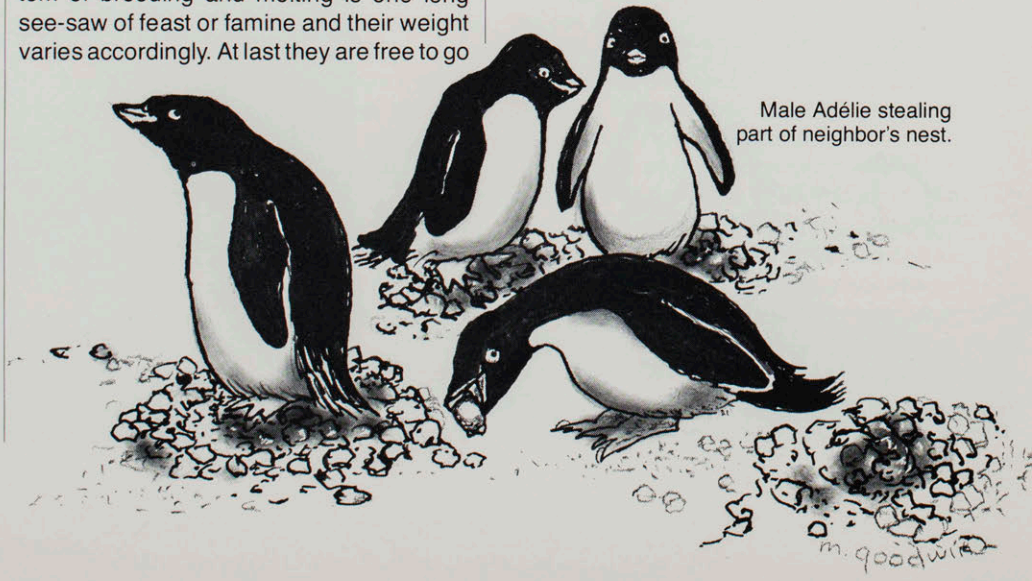
The adults, now molting, stand at the edge of the water or drift on old floes. Until their water-resistant thick new feathers are completely grown they may not swim for they would not be insulated from the cold. Their bodies use a great deal of energy to produce new feathers. By the time they are fit for the sea their weight is down again. For the adult breeding penguin the whole system of breeding and molting is one long see-saw of feast or famine and their weight varies accordingly. At last they are free to go north with the pack ice where they spend the winter months with the young birds feeding on the ever-plentiful krill.

At the beginning of the next Antarctic spring they will once again respond to the changes in their biological clocks and start south for their breeding grounds.

In March, just as all other species of penguins are leaving the fast consolidating pack ice, the Emperor penguins arrive on the edges of the Antarctic continent. It is the end of fall, the days very short, the storms increasing. But this is not folly, to breed here during the Winter. It is another case of adaptation and seasonal exploitation. The Emperor is a big bird; males may be as much as four feet tall, and the average bird will weigh between sixty and seventy pounds. It takes nine to ten months from egg laying to fledgling. The young are not molted and ready to go to sea until January or early February; mid-Antarctic summer. This is the ideal time for fledglings in the Antarctic because of the spring planktonic bloom. (The closely related King penguin has an eighteen-month nesting period. The half-grown chicks remain ashore through the winter and are fed every three to six weeks.)

Adult Emperor penguins come ashore travelling over miles of new ice, usually walking in a long single file or tobogganing on their chests using short but strong flippers as paddles and their feet as rudders. Thousands of these beautiful birds with the elegant stance, long de-curved dark beak with fluffs of dusky pink and blue at its base, and pale yellow ear patches and bib, congregate on shelf ice attached to the shore. They make no nests for there is no nesting material. In mid-winter, May and June, the female lays a single egg which the male then incubates (rather like the sea horse). He holds the egg on his feet. It is surrounded by a pouch-like flap of skin which keeps the egg just above 90°F.

The female has fasted during courtship and egg-laying, and she now goes to sea to



Male Adélie stealing part of neighbor's nest.

feed and replenish her fat, protection against the −50°F Antarctic winter. The male fasts as he carries the egg about for two months, incubating it. He will lose up to fifty percent of his body weight. In some remarkable knowing way the female returns from the sea just as the egg hatches (August). She gives the newborn, down-covered chick its first meal of regurgitated squid, *et al.*, and carries it on her feet. The male now goes to sea to feed. The adults alternate protecting and feeding the chick for up to six months, until the chicks have grown their juvenal plumage.

The colony of Emperors must endure fierce blizzards. They stand huddled close in a great mass with their backs to the icy wind. The young are in their crowded crèche surrounded by sentinel adults.

In their search for squid to feed the young, Emperor adults must dive beneath the vast spread of ice. They must maintain contact with the surface by remembering through which lead in the ice they dove. They are capable of diving to a depth of more than 800 feet and can remain under water for as long as eighteen minutes. (All penguins have extra air sacs on the body which helps to store oxygen.) The Emperors' heart beat, blood chemistry, flow, and volume changes in the different tissues to allow maximum use of the organs needed during diving.

As the ice is breaking up in the long summer sunlight, squads of birds gather on the ice waiting to be rafted north. If the young do not finish their molt before the floe on which they stand disintegrates they perish.

All the Emperors spend the summer at sea feeding. They return to their home ice each fall for many years. It is an astonishing way of life for this most fascinating of all of "ye feather'd fish."

Mary P. Goodwin, frequent TERRA contributor, returns in this article to her first love, the Antarctic. She has supplied the lovely drawings as well.

Selected Bibliography

Simpson, George Gaylord. *Fossil Penguins*. Bulletin of the American Museum of Natural History, volume 87, article 1, New York 1946.

Goodwin, Mary P. *The Case of the Lost and Found Penguins Nature and Science*, vol. 7, no. 10, February 2, 1970.

Bernacchi, Louis C. Saga of the *Discovery*. Blackie and Sons, London, 1938.

Kooyman, Gerald L. Deep Divers of the Antarctic *Natural History*, March 1976.

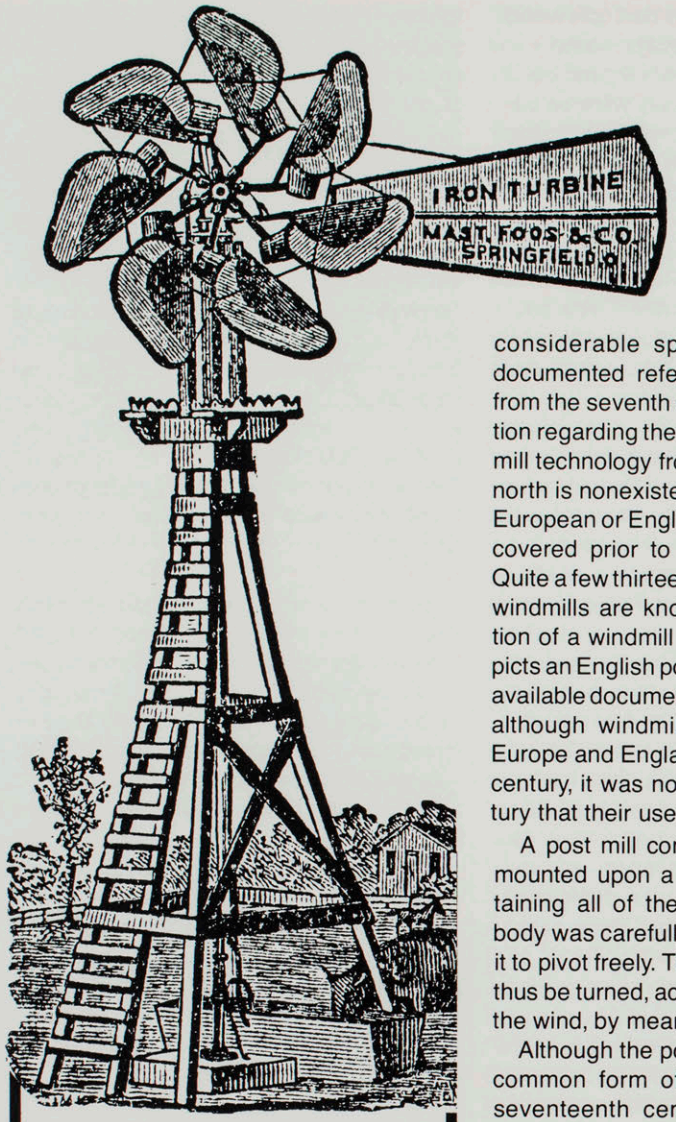
Adélies leaping onto shore ice. (Dr. G. Murray Levick, R.N. British Antarctic Expedition).

Emperor penguin crèche. Photo: Guy Mannering, *South, Man and Nature in Antarctica:* Reed Books and DSIR, New Zealand.

A *Weddell* seal and Adélies on an ice floe. Photo: Mary P. Goodwin.

Gentoo penguin and chicks, beginning to lose their down in January.

Photo: Charles Tilton.



Windmills: Transient Fixtures of the American Landscape

by **Roger C. Hatheway**

Editor's Note: A recent article in the Los Angeles TIMES stated that "putting a windmill on your roof or in your back yard may save you money, but it doesn't always guarantee you a friendly reception from your local electric company." Nevertheless, there is avid interest everywhere in the resurrection of the windmill as an energy source. We are printing the following article to whet your interest in a do-it-yourself-project. Possible plans may be obtained by writing Windpower Digest, Jester Press, Bristol, Indiana, 46507.

Man has produced two great classes of machines for harnessing the power of the wind, the sailing ship and the windmill. They are among the most beautiful and romantic contrivances ever built or ever likely to be built. In the windmill lies an almost magical simplicity of line and motion that is rare in any age. A century ago Robert Louis Stevenson wrote, "There are indeed few merrier spectacles than that of many windmills bickering together in a fresh breeze ...gigantically human as of a creature half alive, [they] put a spirit of romance into the tamest landscape."

Stevenson's words captured the very nature of a passing age, for the steam and steel of industrial technology would soon supersede the utility of the windmill. Yet mankind never seems wholly to lose its fascination with the nature of time and time past. The study of the social and technological evolution of windmills in America provides a unique opportunity to understand the course of our American history. The story includes the transfer of material culture from the Old World to the new, and the adaptation of such culture to the growth and industrialization of the American environment. Until quite recently, the windmill was most often regarded as a charming aspect of the folklore of the American past. Today it has been resurrected by the needs of an energy-conscious world. Once again, and not wholly quixotically, man has gone tilting at windmills.

The date that windmills were first used in Europe and England is uncertain. The origin of the windmill is itself a matter of considerable speculation. The earliest documented reference is Persian, dating from the seventh century A.D. But information regarding the possible transfer of windmill technology from the Middle East to the north is nonexistent, and no reference to a European or English windmill has been discovered prior to the late twelfth century. Quite a few thirteenth-century references to windmills are known. The earliest illustration of a windmill is dated 1270, and it depicts an English post mill with four sails. The available documentation thus suggests that although windmills were known in both Europe and England as early as the twelfth century, it was not until the thirteenth century that their use was widespread.

A post mill consisted of body and sails mounted upon a vertical main post. Containing all of the working machinery, the body was carefully balanced so as to allow it to pivot freely. The entire apparatus could thus be turned, according to the direction of the wind, by means of a lengthy tailpole.

Although the post windmill was the most common form of windmill built until the seventeenth century, two other distinct types of windmills ultimately emerged. The first of these, the smock mill, was a multisided wooden structure with a brick foundation. Only the cap of a smock mill turned to face the wind. The body could be built much larger than that of a post mill, and generally contained more working machinery. Like the smock mill, the tower mill could also be built quite substantially. Tower mills were constructed entirely of brick or stone, and were often round in configuration. The tower mill first appeared in England at approximately the same time as the smock mill, and both enjoyed increasing popularity throughout the eighteenth and nineteenth centuries.

At the time of the initial transfer of culture from the Old World to the new, the post mill was the predominant design in Europe and England. And it is not surprising that the earliest American colonial mills were of this type. The ease of construction and a readily available supply of lumber made the post mill an ideal choice for the colonial environment.

Windmills were generally built only where there was no readily available supply of water power. Most American windmills built during the eighteenth century were smock mills, and except for their shingle covering, a characteristic feature of colonial architecture, American windmills were copies of their English and European counterparts.

The millwright was a craftsman, and craftsmen were extremely important to early colonial life and society. The knowledge they brought with them was essential to the survival of settlements in a new and untamed land. The only sources of power throughout most of the colonial era were muscle, wind and water. New England, the area extending from New York to Maine, had plentiful supplies of wind and water, but was plagued with acute shortages of animals and manpower. It is only natural that windmills proliferated throughout the colonial period.

The miller, unlike the millwright, was not an itinerant craftsman. Dressed in heavy woolens, a leather apron around his waist, the miller was often one of the wealthiest and most respected men of the community. Town records of Bridgewater, Massachusetts, indicate that at the time of its founding in 1651, the title "Master" was bestowed only upon two men, the pastor and the miller. The miller was one of the few men in the community fortunate enough to draw a steady income.

The millwright and miller had quickly become two of the most important men in colonial society. The knowledge of the art of milling was the key that unlocked the resources and wealth of the new land. Yet, the windmillwright worked in wood and the forthcoming industrial age would increasingly depend upon iron, steam and steel. The windmillwright, the miller and the windmill were strongly affected by industrialization.

The history of the windmill to the middle of the nineteenth century is a classic example of the craft tradition in conflict with industrial technology. In England, the windmill was widely used for the purpose of grinding grain well into the twentieth century. In America, however, a high mobility and increased productivity encouraged the adoption of new technology in both large and small manufacturing concerns. Alexis de Tocqueville observed, "In the midst of continual movement which agitates a democratic community, the tie which unites one generation with another is relaxed or broken. Every man there readily loses all track of his forefathers, or takes no care about them." The development of steam power heralded the arrival of the industrial age. Americans were obsessed with the practical nature of science, and craft traditions were discarded in favor of modern industrial techniques.

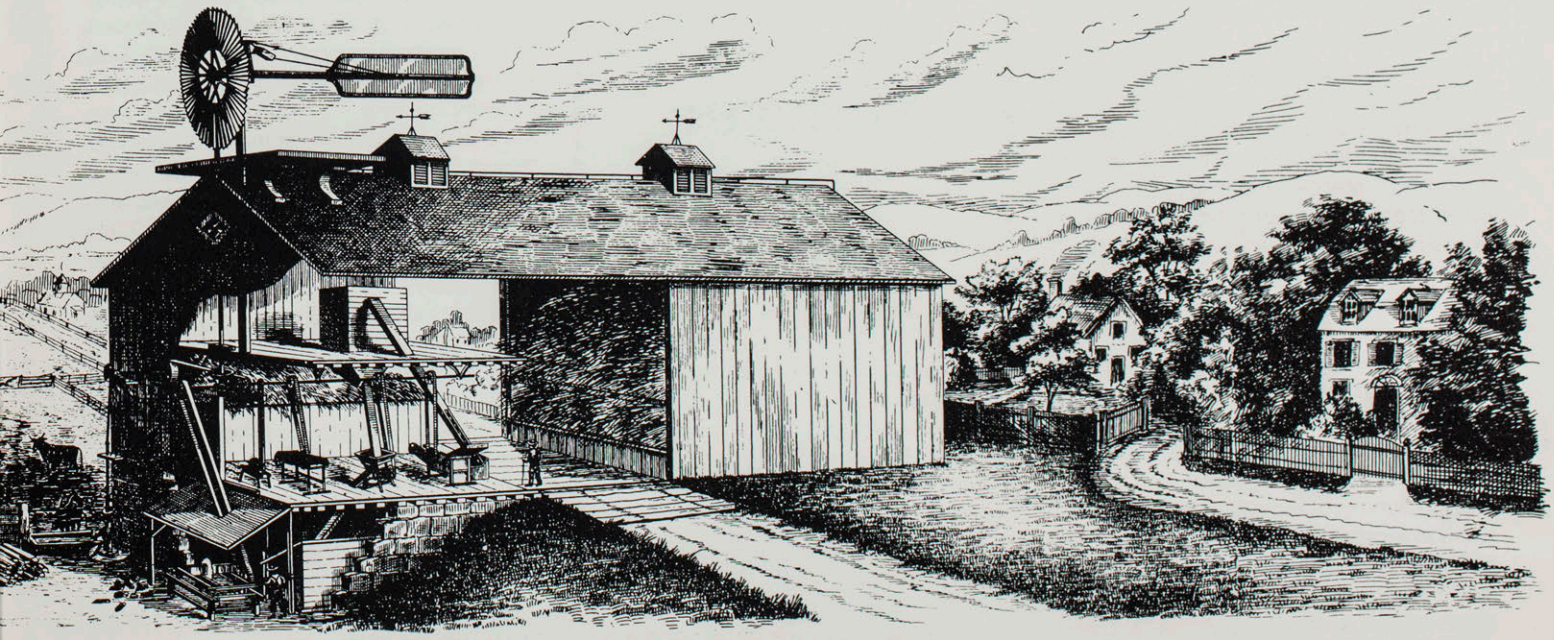
Ironically, the progress of industrialization which had so effectively challenged the windmill's utility as a source of energy would eventually create a new and distinctly American form of windmill. As opposed to the craft-built windmill originally found in the American colonies, the new "American mill" was a product of the manufacturing industry. Riveted and bolted together, the skeletal framework and cast iron fittings of the American windmill were easily mass produced. Lowered costs, and a rapidly changing geographic and economic situation in mid-century America once again turned people towards the power of the wind.

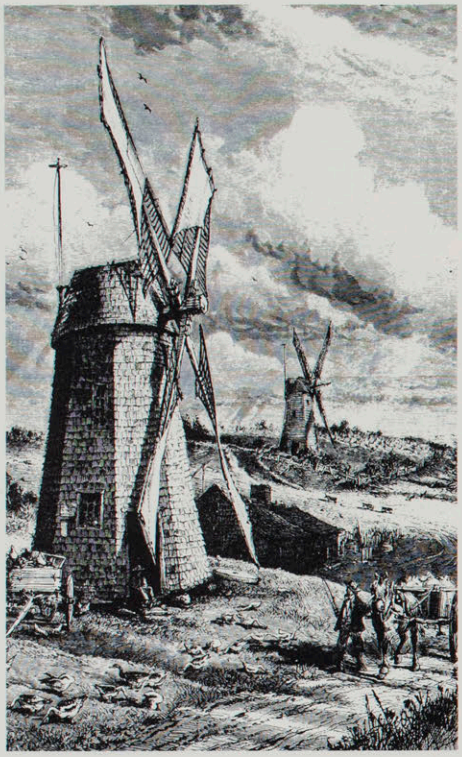
The American windmill consisted of a wheel, twelve to twenty feet in diameter, made of closely spaced wooden slats or "sails." The wheel presented a large surface area to the wind and developed a substantial amount of power. Yet, unless constantly attended, it was perpetually in danger of being destroyed by high winds. Not until 1854 did Daniel Halladay develop the first governor to automatically feather the sails of the mill, giving it a more constant rotational speed. Not surprisingly, adaptations, innovations and competitive designs soon proliferated.

American windmills were produced in increasing numbers during the last half of the century. The U.S. Bureau of Census figures indicate that from 1869 to 1900 the domestic output of windmills increased from 20,000 to 120,000 horsepower. The original wood-vaned American windmill was considerably modified during the last quarter of the century. Powerful and sturdy, iron and steel mills were constructed as the cost of metal declined in proportion to the development of more efficient manufacturing techniques. These windmills were used on the farm for a number of purposes, including grinding, cutting feed, sawing wood and running other small machinery.

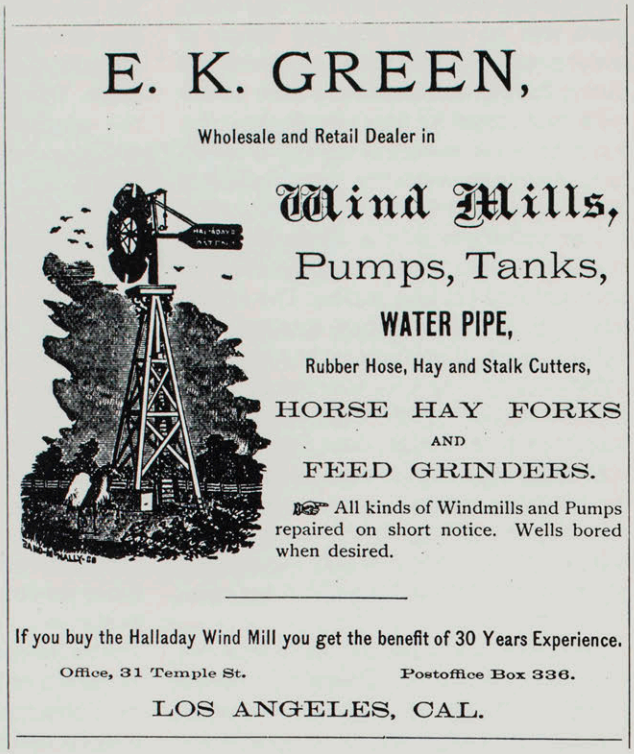
During the second half of the nineteenth century the population of the United States was steadily moving westward. The fertile midwestern prairie was producing grain in large quantities, and the lure of gold drew

The windmill was used for a variety of purpose including, cutting, grinding and feeding.





An American smock mill of the type that proliferated throughout the eighteenth and into the nineteenth century. Note the shingle covering of the exterior, a characteristic of early American architecture.



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men to the shores of the Pacific. Naturally, as the country reached towards the West, there was an increased need for inexpensive supplies of potable water. The newly-developed American windmill answered almost every need. The water table below the surface of the prairie was high enough that only a limited amount of power was needed to raise it. Water was also needed for the thirsty and arid regions of the American Southwest, and there too mills were constructed. By the early 1890's it has been estimated that there were several hundred thousand windmills in operation, and by the end of the nineteenth century the windmill was once again thought of as a useful and essential source of energy. The mass-produced American windmill, by virtue of its lighter weight and simple skeletal framework, was easily shipped to any location, and it was exported and adopted throughout the world as an inexpensive source of energy. By 1920 the domestic figure had risen to 200,000 horsepower and the worldwide market for American windmills appeared to have no bounds. Yet forces were already at work that would once again slow and eventually bring to an end the widespread use of the windmill.

The price of fuel had decreased in proportion to increased oil production, and the first quarter of the twentieth century witnessed a greater use of the internal combustion engine. But by far the most important development involved in the demise of the windmill was the increased use of electricity. At first a luxury, then a convenience, and finally an everyday appliance, electricity significantly altered the American lifestyle. And, although wind-powered electric generators were common in rural areas from the 1930's, to the 1950's, they were quickly discarded as the more dependable electric powerlines became available. The windmill was relegated to progressively more isolated areas until it became a symbol of American folklore.

Wind power was soon forgotten by a population used to a seemingly endless supply of energy. America's electrical productivity increased; unfortunately so did a fondness for articles such as televisions, hair dryers, and electric pencil sharpeners. By the 1970's the United States was faced, as were other nations of the world, with a potentially crippling energy shortage. Only recently have politicians, engineers and architects seriously examined the alternatives.

Near Albuquergue, New Mexico, a small group of families enjoys the most modern conveniences, such as electric light, television and stereo. No wires however, lead to the tiny settlement. Like the New England colonists, the inhabitants of the world's first solar-powered dome are dependent entirely upon natural sources of energy. For Robert Reines, director of Integrated Life Support Systems Laboratories, and his companions, the windmill is essential to the survival of their community.

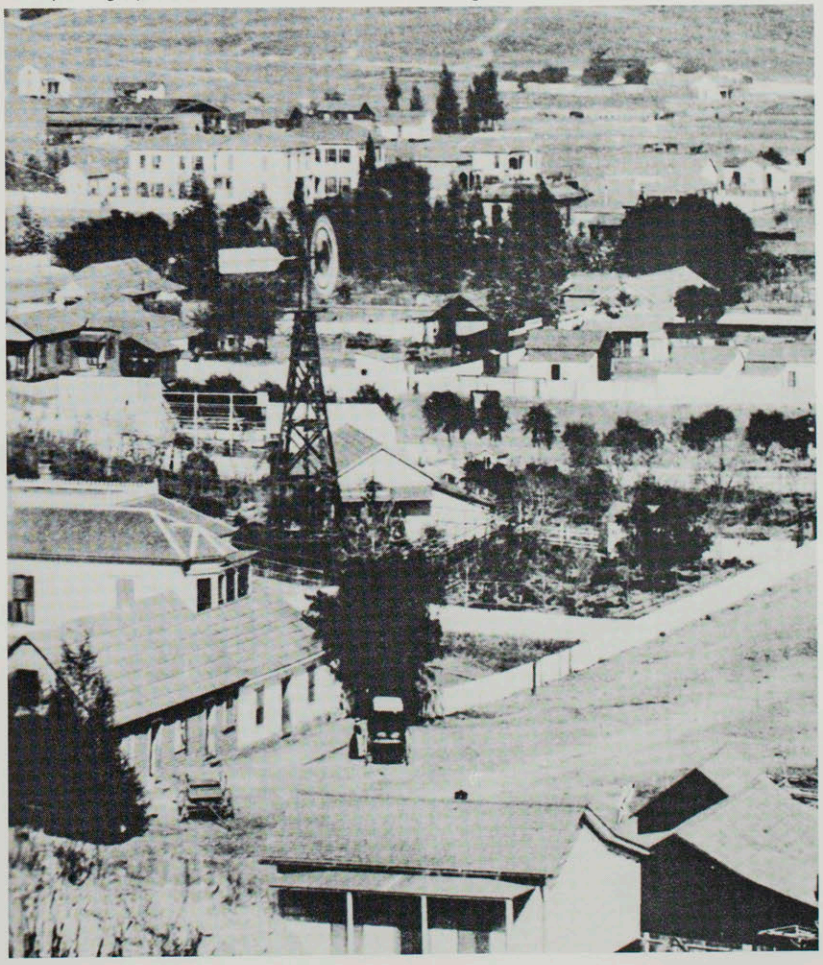
Wind power has again emerged as a potential source of energy. Only recently have improvements made the large scale generation of electrical power by the wind a practical reality. Today both government and private agencies are working towards the utilization of natural energy sources.

On the shelves of bookstores in nearly every community may be found books and pamphlets relating to alternative sources of energy. Increased interest on the part of the American people has led to a greater awareness of the growing discrepancy between our needs and our resources. Much like the circular motion of the mill sails, the history of the windmill in America can be traced in a cyclical pattern. Highly valued by the colonial Americans, the windmill was abandoned in favor of the power of steam. Reemerging in the late nineteenth century, wind power was slowly replaced by the more convenient availability of electrical energy.

The early explorers of the American continent were aware of the interrelation between energy and the environment. The organic lifestyle they developed has a definite place in America today. The design of the windmill has been drastically altered since colonial times, but it is still a part of the American landscape. Of the future, only one thing is known for sure. As Victor Hugo once remarked, "Madame—Bear in mind that princes govern all things save the wind."

Roger Hatheway is a Student Professional Worker in the History Division of the Natural History Museum of Los Angeles County. With a B.A. from Brown University, Roger is also a graduate student at U.C.L.A. and is pursuing a Ph.D in the History of Science.

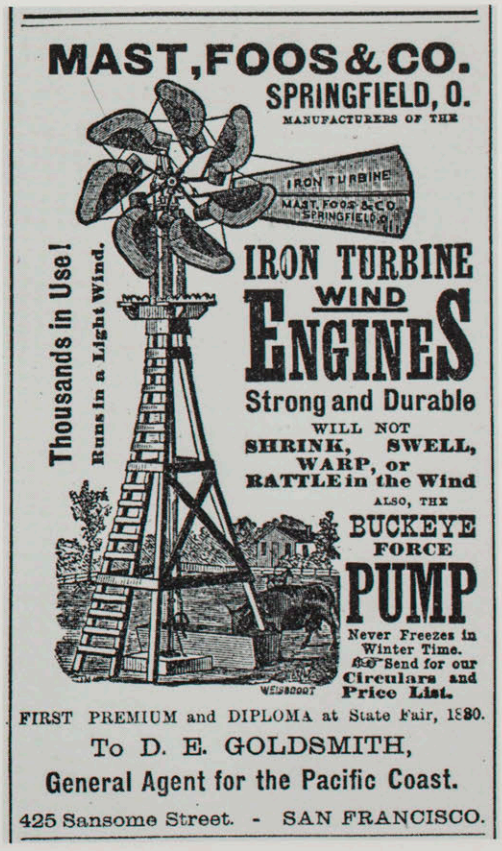
This is an example of the Halla day windmill.
This photograph was taken about 1885 in Los Angeles.



A local advertisement illustrating the two basic types of the American mill. The all metal to the left and all wood to the right.

The windmill as folklore. Van de Kamp's operated a chain of bakeries like the one pictured here in Los Angeles.

The success of the Halla-day windmill resulted in many adaptations and innovations. An example of this particular windmill will be placed on exhibit in the Museum's new Lando Hall.



The Uncommon Geranium

by **Chris Rosmini**

Photos by Dick Rosmini

To most people around the country the word "Geranium" conjures up an image of bright red globes of flowers on a plant with roundish leaves growing somewhat stiffly in a pot, probably on a window sill. But to Southern Californians the name "Geranium" should bring to mind a far larger variety of colorful, useful and intriguing plants.

It should call forth ivy geraniums for hanging baskets, sweeps of pink and lavender ground cover, azalea-like blooms of the Martha Washingtons, amazing variety of shapes and textures, dwarfs and miniatures and a great range of vivid and delicate hues, sometimes accented by leaves splashed with white or turned to a green-gold, rust or rose, and often with pungent, succulent odors.

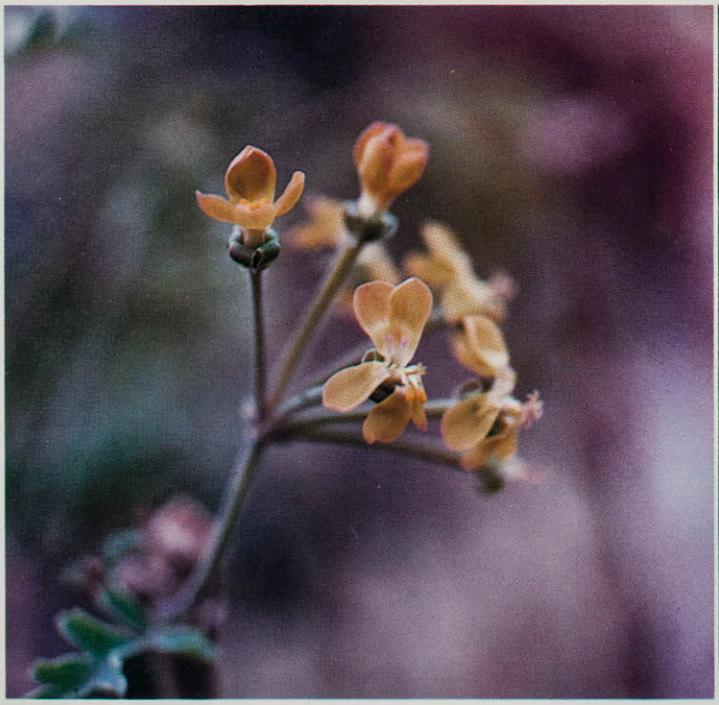
The geraniums, or more properly, the pelargoniums are the largest and most important genus of the family *Geraniaceae.* The almost two hundred species of pelargoniums were called geraniums when originally introduced to cultivation. They were divided off from that family of European wild flowers by virtue of their possessing, in addition to the beak-like seed capsule of the geraniums, a nectar tube in the individual flower stalk. This was done by the botanist, L'Heritier, who thereby created an unending source of confusion for gardeners new to the subject and an opportunity for knowledgeable smugness in the initiated.

No plant could have done more to seek diversity while clinging to these reproductive similarities. The wild species, like multinational corporations, have chosen diversification as a route to survival in a harsh environment, primarily the hot, dry summer areas of South Africa.

This adaptive diversity has produced the extremely varied genetic stock that produced our hybrid cultivars and has been a source of joy to many collectors. The species include such plants as *P. gibbosum,* the knotted storks bill, whose succulent stems have swollen and arthritic-looking joints, a loose random habit of growth, and large, deeply-lobed glaucous (smooth) leaves, whose sprays of little greenish-yellow flowers are pineapple-scented — but only at night. *P. triste* has a corky caudex root structure like a woody bulb above ground, feathery, finely-cut black and yellow flowers, also night-scented.

In contrast *P. australe,* one of the few non-South African species, has deep green, satiny-smooth leaves growing in a rosette from a central crown as a violet does; its round white flowers are etched

Pelargonium *gibbosum.*



Pelargonium *australe.*

with black. With a similar habit of growth but entirely different lance-shaped grey leaves *P. violarium* has perhaps the loveliest flowers of the wild species: the three lower petals are cream white and the two slightly larger upper petals are a rich rosy purple, like raspberry juice in cream.

These are only a few of the great variety of species, but they may give a clue to the cause of the continuous murmur at any Geranium Society flower show of "You mean to say *that's* a geranium?" or sometimes, "You can't tell me that's a geranium."

Another interesting category slightly more familiar to the public and highly popular at flower shows are the scented-leaved pelargoniums, a group seemingly designed to make hobbyist-growers out of otherwise weekend gardeners. These are the garden-worthy plants which give off their scent when touched or bruised or if the air is warm and still. Many of these are also species or hybrids occurring in the wild, and they range from *P. tomentosum,* a plant that makes a splendid sprawling ground cover in part shade, with its large velvety grey-green leaves and peppermint-cream aroma, to *P. crispum,* the lemon-scented geranium with stiff stems packed with tiny crinkled deep green leaves, and the round wavy-edged, glove-leather-smooth leaves of *P. odoratissimum,* whose scent is of ripe apples or eglantine.

There is a group of so-called oak-leaf cultivars with an odd, pungent scent and dark central blotches on their intricately lobed leaves. These scented varieties have a heady variety of fragrances of rose, lime, peach, strawberry and mint, astonishingly like their namesakes and of leaf shapes from simple round to skeletal filagrees. Variegation also shows up in these scented types, with white edges to the deeply-cut leaves of "mint rose" and the curly leaves of lemon "Prince Rupert Variegated," also called "French Lace," or flecks and stripes of white in "Variegated Nutmeg" and "Snowflake".

These are plants to be touched to release the scent and for the tactile joy of plush or satin smoothness, and thus are plants for container gardens and intimate situations, to brush against in passing. And they are plants *par excellence* for foliage effect. Though many also have attractive flowers, small and airy or large and bright, it is the foliage tapestry that gives them real decorative value. A famous geranium nursery of some years ago had a terrace planted solely with scented pelargoniums for the patterns of the leaves, and the potpourri of fragrances. Used with herbaceous plants or shrubs they add texture and variety and the continual fascination of their perfumes.

The scented leaf category also includes a group of hybrids from this stock bred for larger flowers and the tough landscape value of the scented foliage. There are fine older varieties: bright pink "Clorinda" and charming "Capri", but perhaps the best are a new range of hybrids by Frances Hartsook: deep nearly-black red "Mystery" and the colorful trio "Polka", "Bolero", and "Voodoo".

Much of the work of hybridizing pelargoniums has been done in California and these plants are grown all over the world. Now working in Southern California are Miss Hartsook and Harry and Clara May, who have created some delightful miniatures, fancy leaf zonals, and gorgeous "Martha Washington" type of geraniums.

Botanical print from the collection of Elizabeth LeCount.

Pelargonium *violarium.*

Mixed planting of scenteds in a hollow log: "Lime," "Nutmeg," "Lemon."

The regals pelargoniums, the only members of the genus popularly accorded the name pelargonium, are the most spectacular of the family. These are the plants with the huge clusters of glowing rhododendron-like blossoms and are the group longest in cultivation. Their color range is wide: from apricot to orange, from pale pink to the deepest black reds, from white to lavender to deep purple. The petals are often blotched or streaked with contrasting colors. They can be white with a red pinwheel center or dark purple with an amaranth edge, or even salmon with a lavender banding. The petals can be ruffled or fringed and all have a luminous silky sheen.

Many varieties of regals are available in the nurseries at their blooming season and have been popular for container plants since early Victorian days. But even here there are charming variations that are virtually unused. There is a small sub-group, small both in numbers and in size, called "Pansy-Faced Geraniums," which have the two large upper petals dark red or purple and the three lower petals white. This is a recurrent theme of species *pelargonium,* characterized by flowers that look less highly developed than the large self-colored hybrids. These simple flowers borne in great masses give a truly charming old-fashioned effect.

A similar group is often grown in Europe called "Angel" pelargoniums. Most of the regals grow well in the ground or in large containers. One sees them growing wild in older parts of Los Angeles, spilling over banks, billowing up through picket fences, blooming gloriously, and looking little like the fragile conservatory plants they are in other parts of the world. They will bloom with one great burst for a shorter time than other pelargoniums but with such abandon and glowing lushness of color that they have been called "the azaleas of summer".

Ivy geraniums are familiar to the Southern California gardener in the varieties used for ground cover and sold by color in the nurseries. They come in white and lavender, pink to red, and make great sheets of color spilling over banks. Ivy-like both in habit and foliage they show less of the family taste for variety than the other groups, perhaps because they were derived from only one parent species (*P. peltatum*), by selection and careful inbreeding rather than

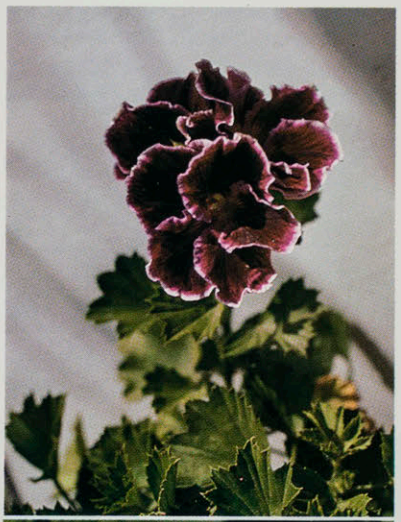
Group of six regal pelargoniums.

"Grand Slam."

"Pink Chiffon."

"Noche."

"Aztec."



"Pompeii."

"Starlight."

by using the wider genetic range of hybridizing between species.

Nonetheless a visit to a flower show or specialist nursery will show variations that add vastly to the plants available to container gardeners. These are the supreme plants for hanging baskets, compact growing and floriferous with single to double blooms in a range of bonbon colors. There are a few variegated foliage types for spectacular baskets, "L'Elegante" or "Lady Lexington," and a new form with bright red variegated flowers known as "Rouletta." Two miniature types make delightful large baskets of dwarf leaves dusted with small white or larger pink flowers. The miniatures are not suited to the rough-and-tumble life as ground covers.

The zonal geranium group brings us to that red geranium of song and story. By now you should almost expect the dazzling variety of orange-red, scarlet, vermilion, crimson, cinnabar and magenta — sometimes both at once — that geraniums, unequalled in the horticultural world for luminous intensity of color, can produce. They can be subtle too with melting apricot and oranges, pinks and roses, and they can be flecked and speckled like birds' eggs in soft pastels or sometime pale petals edged in darker colors, a vivid band or a delicate pencilling. There is one odd red flower with a ragged white edge, "Mr. Wren," with no known relations, and the red and white striped beauty, "New Life," that can never settle on one form.

The classic zonal flower is almost perfectly rounded and can be single or double, but there is a new group with quilled petals and cut leaves that is called "cactus flowered" for no obvious reason.

There is a recent development of a whole race of miniatures, delightful tiny replicas, which are superb pot plants. They avoid the sometimes awkward look of the zonal geranium in a pot by being mature, bushy plants in four-inch pots. With the full range of zonal flower color they also have an added attraction: many have dark foliage that turns almost black in cool weather. Some of these, like "Redondo," with scarlet flowers, are such vigorous plants they can be used for a dramatic low hedge or border. There is also a full range of miniature geraniums with fancy variegated leaves.

But the real wonder of the zonal category, perhaps the most exotic development of a family with a taste for the unusual, are the fancy leaf zonals. These are the grand fantasies that spring from that dark-banded leaf that gives the category its name, now intensified and widened and produced in black and rust color on leaves of yellow, lime or deep green. When combined with the albino or yellow variegation more usually seen, it produced the "golden" and "silver tricolors" first grown in the early Victorian period. Today, these leaves with their concentric rings of green and brown splashed with rose and yellow look as elaborately Victorian as their names, "Lass O'Gowrie" or "Miss Burdett-Coutts."

Geraniums have something for everyone, for they have fantastic diversity, glorious color, a long blooming season and easygoing disposition. There are enough rare and odd types to allow the collector the thrill of the chase and they are easy to propagate. The geranium has everything, in

Dwarf zonal hybrid, "Redondo."

Dwarf cactus variety, a Holmes Miller hybrid, "Urchin."

A basket of miniature ivy, "Sugar Baby." A large plant of a small variety.

fact, but snob appeal. And therein, perhaps, lies the reason for the popular neglect of the last few decades. It is possible that, along with the normal cycles of fashion, their very willingness has worked against them. People, even gardeners, often have a tendency to place less value on something that comes easily and to regard lack of fussiness and eagerness to please as faintly vulgar.

You can hear them say at the flower shows: "Geraniums? Oh you can just pitch them over the fence into a vacant lot and they'll grow. They're *weeds.*" Well, it is true that geraniums seldom show the temperament of the demanding dahlias or look as disdainfully exotic as, say, bromeliads. Geraniums always contrive to look friendly and useful.

Forty years ago Sidney Michell wrote that geraniums were not commonly used in a climate where they are superbly adapted; that they should replace the perennial phlox and other border plants, for geraniums would give us equal color willingly. In our warm-winter gardens, where we need planting that is fit to be seen all year, we need the wonderful persistent foliage patterns and long and colorful blooming season of such scented geraniums as "apricot" or "fair Ellen." We should use the dwarf zonals for permanent bedding plants and the showy regals for larger mixed borders. These and the ivys are tough, persistent plants and can be grace notes in a landscape garden.

The uses and some of the bewildering variety of pelargoniums are demonstrated at the flower shows put on by the branches of the International Geranium Society, the largest and most elaborate of which is the Southwest branch show in Los Angeles every spring. Here exhibitors from all over Southern California exhibit their prize plants, flower arrangements, and show new hybrids.

Where do you find these treasures? The best source is probably the sale of member-grown plants at the various geranium shows, and visits to the few remaining specialist nurseries where they still believe in that wonderful variety of the plant world.

Author and gardener Beverly Nichols regards the geranium as a test of character, once writing that he could never really trust a person who was not passionately devoted to geraniums.

Chris Rosmini is a landscape designer, one of whose special hobbies is pelargoniums. She is a director of the International Geranium Society and the Southern California Horticulture Society. Her garden was featured in a recent issue of Sunset.

Pelargonium *x. ardens.*

Pelargonium *echinatum.*

Pelargonium *cordifolium.*

Continued from page 2

idea that behavior is at least in part genetic in nature, this will provide politicians and others with "authority" to oppress minority groups. Their concern is perhaps genuine and the social *misuse* of Wilson's ideas is not inconceivable. In their crusading zeal to protect mankind from this heresy, the group has indulged in a form of academic vigilantism characterized by deliberate misrepresentation, systematic distortion and personal attack. These activities are morally and ethically repugnant. The Group would suppress research in areas which are socially and politically sensitive. Science for the People is, apparently, attempting to set up a situation in which only "approved" investigation is permitted.

Such a concept is not new. This sort of mentality led to the persecution of Leonardo da Vinci, Giordano Bruno and Nicolas Copernicus. More recently, it dominated the science of genetics in Russia during the Stalin-Khrushchev eras. It is a way of protecting cherished ideas, not facts, from free questioning. It is an attempt to create a new Dark Age of superstition, intimidation and suppression. It would, in the long run, result in more social injustice than could any conceivable misuse of Wilson's ideas.

Is political suppression of scientific investigation possible in this country? Most regrettably, it is not only possible in the United States, it is an accomplished fact. It has been practiced and is being practiced now. In scientific circles it is known as being "Proxmired"; the term derives from Senator William Proxmire of Wisconsin who has initiated his own program to stifle research which he personally sees as questionable or objectionable. Using tactics reminiscent of the McCarthy era, he has heaped scorn and ridicule upon scientists. How successful has he been? In April 1976 the House of Representatives specifically denied the National Science Foundation funds for an NSF-approved research effort. Why? Because the subjects being studied are presently socio-politically taboo: marijuana and sex. It was not enough that fellow scientists, through the system of peer review, felt the proposed research worthy of funding. *Politicians* decided that such research must be suppressed.

The City of Cambridge, Massachusetts, has specifically forbidden Harvard University scientists from doing research in a possibly dangerous area of genetics (DNA recombination); Senators Edward Kennedy and Jacob Javits urged President Ford to place all such research under Federal control, including that conducted in private laboratories under private financing. There are other instances, but there is no need to provide further grim evidence of the rising New Inquisition.

Is a scientist responsible for the socio-political implications of his ideas and his work? It is a difficult question, one which has plagued scientists, especially since the atomic bomb destroyed Hiroshima and Nagasaki. The scientific community is divided. Some maintain that a scientist must be free to investigate whatever he chooses and that political use—or misuse—of his work is the responsibility of the politicians and other decision-makers. Detractors claim that this is "ivory-tower elitism" and that scientists are accountable for the uses to which their discoveries are put. For the question, I have no answer, but I do have an opinion. It should be obvious from the preceding discussion that I am opposed to the new vigilantism which is expressing itself so strongly in this country. It is not merely a matter of suppressing potentially hazardous research. It is not merely a matter of forbidding the development of a latter-day equivalent of the atomic bomb.

True, research into DNA recombination carries with it the possibility for terrible misuse, but the potential for good is at least as great. Decisions for the use of scientific information cannot be taken lightly, nor can they be in the sole control of one group, whether scientists, politicians or another interest group. Nor can we afford to encourage the present anti-intellectual attitude which will actively seek to stifle free inquiry.

Are Wilson's ideas so potentially dangerous? Science for the People thinks so. Should research into such hazardous areas be forbidden? Evidently this is what Science for the People would prefer. If Wilson is wrong, let him be proven wrong by scientific inquiry, not by distortion and slander motivated by political ideology. Kangaroo court tactics will not prove Wilson wrong, but they will hasten the demise of free scientific investigation.

If it can be shown that Wilson's views are correct, no matter how politically distasteful, what then? Must we accede to the status quo and to social injustice? I think not and neither does Wilson. It does mean that we have problems with which we must reckon. The only way to solve a problem is to recognize first the fact that it exists. Once that is accomplished, rational efforts to circumvent the problem are possible. On the other hand, there *is* the ostrich solution...

Roy Snelling is a curatorial assistant in the Entomology Division of the Natural History Museum of Los Angeles County. TERRA welcomes replies to his editorial.

In the Bookshop

Wonders of the Pelican World, by Ralph W. Schreiber, curator of Ornithology at the Natural History Museum of Los Angeles County, and Joseph J. Cook, is a treasure for pelican lovers. The authors discuss pelican anatomy and the life cycle of the pelican colony. Forty-eight photographs by Schreiber enhance the book. [Dodd, Mead & Co.; $4.50]

Wonders of Sea Gulls, by Elizabeth Anne and Ralph W. Schreiber, tells the story of sea gulls, from hatching to loafing. The reader is introduced to twelve well-studied species of the total forty-four. It's a fascinating book that helps set the record straight about gulls. [Dodd, Mead & Co.; $4.95]

By Mail Order

Botanical Resources of Southern California, by Janice Bartel and Sage Belt, is a guide of botanical resources from San Diego to Santa Barbara. It offers cogent information about botanical museums and arboreta, nature centers and parks, and even includes such minutia as monthly plant shows. The volume also provides extensive bibliographies of literature and organizations specifically devoted to botanical interests. The eighty-page guide has been enhanced by original illustrations by nature artist Frances Runyan, and photographs of the botanical centers. The price is $4.00 and may be ordered through Museum Publications, Natural History Museum of Los Angeles County, Los Angeles, Ca., 90007. Include $.50 for postage and handling and $.24 California sales tax, if applicable.

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